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JOHN A. DIX, T. ROMEYN BECK,
GIDEON HAWLEY, THOS. W. OLCOTT,
AMOS DEAN, EDWARD C. DELAVAN.

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TO THE PUBLIC.

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Political Economy.

[For the Northern Light.]

A PROTECTIVE TARIFF.

BY WILLIAM H. JANSEN.

I cannot leave this subject without meeting all the objections of the advocates of protection. It is one of vital importance to our farmers and mechanics, and it is their duty to understand it. As I have failed to convince some upon the points I have advanced, repetition will be excused.

There are not two countries upon the face of the earth that have the same capacity to produce every agricultural product, or the same natural advantages for the fabrication of them into particular articles. The north produces grain, the south the tropical fruits. The United States is unrivalled in the production of cotton, tobacco, lumber and grain. England is superior in her mineral wealth, and her proximity to the sea. France claims the crown of Bacchus. Italy is rich in silks, and a salubrious climate. Germany possesses a great portion of all these things. China has her teas; Java her coffee; the South American republics their precious stones, gold, silver, and hides. Every country has great natural advantages over most others, in the production or manufacture of some article necessary to comfort and pleasure. The fact that every country exports, proves this.

Now the design of the advocates of a tariff is, to take laborers out of those branches of business in which we have natural advantages, and in which we produce a surplus for exportation, and place them in a kind of business in which other countries have perhaps advantages over us. What is the consequence? Why it is just the same as compelling a farmer to sow wheat on land adapted only for grass; or putting a mechanic to the plough, and the ploughman to the work-bench. Thus skill and natural capacities are thrown away, in order to compete with places where nature is more propitious and failure inevitably follows. Every restraint upon the production of that article which our country favors, enhances the cost, and diminishes the profits of those engaged in it; and by so doing counteracts the benefits which those restraints propose to confer upon other kinds of business. By drawing from those branches of industry a large portion of laborers, wages rise. But will the price of the products of that business rise in proportion? Certainly not. For instance, we produce a large surplus of grain. Now the price of it would not sensibly and permanently advance, so long as there was a surplus. Consequently, while wages were rising, the farmers would be getting only the same price for their grain. Would not this be an injury to them? And while in their very occupations they met with this new difficulty, they would be compelled to pay much higher for their goods than they could be bought at abroad. But admit that grain would rise, the farmer would gain nothing by the operation; for it would be the cost of production, and the additional cost of living, that would force up the price, and not a demand for his produce. The price of the goods he buys will go up in proportion to his grain. Then if there is a propitious season, and a large crop, the price of grain falls; but not so goods; at least not at the same time. I think the greatest difficulty encountered by our farmers, is in the *scarcity of laborers*. Would not any system, then, be injurious, which created a greater scarcity? It is impossible to prevent a surplus of grain in this country; and that surplus would keep down the price of grain, while a tariff would keep up the price of goods. Even England sometimes raises more grain than is needed for home consumption. Every nation has a surplus of something. In spite of all their legislation to make themselves independent, the European nations have each a large surplus. Now when they sell that surplus, they must take the products of the countries to whom they sell in return. Any restrictions upon this exchange is an injury to the country adopting them. Is England independent, with all her tariff? Why, her mechanics are starving for a want of a market for their goods. Restrictive systems at home have deprived them of that market.

The prosperity of foreign work-houses is entirely dependent upon our ability or inability to buy. If they take the products of our labor in exchange, to that extent we have ability to purchase; and this they do. Are the mechanics of England in a better condition than the farmers of this country! Tariffs at home have reduced them to awful distress. And a tariff here would reduce our farmers to a similar condition, by preventing us from disposing of our surplus grain. What a tariff in England effects upon their surplus, a tariff here would effect upon our surplus. No country can avoid producing a surplus of something. Even if they could do this, a fall of prices would be the consequence. For instance, England raises almost enough grain for her own use, while she manufactures ten times as much as is necessary for her farmers, and a great deal more than is necessary for her whole population. Now if these goods could not find a vent abroad, at least two-thirds of her mechanics would be compelled to turn farmers. Thus prices would fall; and she would be deprived of availing herself of her natural advantages over other places, and enjoying fruits and articles which she could not produce. But the surplus of her merchandise finds a market in foreign ports, and foreign goods are taken in exchange; though the producers of this surplus merchandise suffer much in the difficulties which are thrown in the way of this exchange by their own tariff. Deprive England of her foreign markets, and immediately she becomes bankrupt. Do not her own tariffs, in a measure, do this? Certainly. The more difficult it is for them to sell abroad, the faster the wages of labor must come down.

So it is here. The more you check the export of our surplus, by prohibiting us from receiving foreign goods, the sooner wages come down; and labor will enter into other channels, and bring down prices in them also. It makes no matter what the surplus is—whether grain, or cotton, or merchandise. Will a tariff prevent us from producing a surplus? Clearly not; for work ought to be as valuable in one kind of business as another. If a laborer, who has produced upon a farm articles worth $100, and going into the manufacturing business accomplishes work to the same value, is there not property to the same amount, and consequently will there not be the same surplus, though of a different article; and when that surplus comes to be sold in foreign ports, must not the price fall to that at which other nations are willing to sell, and must not something be taken in exchange? And if our laws throw obstacles in the way of that exchange, must not the wages of those creating that surplus *fall*, and by driving them into other kinds of business bring down prices generally? There is no country upon the face of the earth that does not produce a surplus. The only way to prevent it is to compel laborers to work only one half the time, and the other half eat up what they earn. The individual who advocated a "tariff as set forth by an example," did not see that even according to his own statements there would be a surplus; and did not consider the injury a tariff would have upon the sale of that surplus. The paper makers had a meeting not long since in New-York. They said in their report, that their machinery was as good as that in foreign mills, and that their natural advantages were as great as those of any other nation; but that the reason why they could not succeed, was "that it is the policy of France to prohibit entirely the exportation of rags from her dominions. With a dense population, and a comparatively small home consumption of paper, the raw material is superabundant; and consequently very much below the price at which our manufacturers can procure it." This substantiates the doctrines I have all along advanced. A high tariff will prevent exportation, almost as effectually as a prohibitory law. Consequently, those articles of which we have more than we want, or for which there is a demand abroad, are prevented from leaving the country, and the price of them *falls*. By a high tariff, our surplus grain, cotton, &c., cannot be sold abroad, as I have before shown; and like the rags of France, *the price* of them is reduced in proportion to the surplus. Is not this a fair argument? The tariff will operate upon the producers of a surplus here exactly as the prohibitory law does upon the rag owners in France; and for a short time the mechanics will make the same profits out of them.

The advocates of a tariff are continually crying, because other countries have tariffs we must have them. If one tariff thus affects the sale of our surplus, what will two do? Will it make it any better? Won't the parties to the exchange be compelled to pay just as much again, if they can make the exchange at all? Beyond dispute. I have heretofore shown that the farmers never got less for their grain than when the tariff was in full force. Low prices always drive labor into other channels. When the farmers think they can make more by entering into the manufacturing business, they will do so; and we want no tariffs to urge them to this. Let the matter be left to the *instinct* of labor, and not to the uninformed brain of the legislature.

There are other ways in which high duties affect our farmers. It is stated that the cost of making one article increases the cost of making every other. This is undoubtedly true. If the blacksmith must pay more for his clothes, &c., he must have a higher price for his work; and this again adds to the costs of those who employ him. Thus through every ramification of business, the cost of production rises. All this must come out of the consumer. The merchants must have a greater capital to do business upon, and they must make out of their customers not only additional profits, but additional sums for the increase in the expense of living. If goods come 25 per cent. higher in consequence of a tariff, additional capital to that amount is wanted. The expense of all this must come out of the pockets of the consumer. Is this right? The duty now upon iron amounts to about 100 per cent.; consequently, the articles which are manufactured by the use of iron must come 100 per cent. higher, in proportion to the

amount of iron used. If iron came in free, this additional cost to manufacturing would not be incurred. So if coal came in here free of duty at $5, we could manufacture as much cheaper in those branches of business where fire is used, as the difference between $5 and the price at which it now comes. Some of the advocates of a tariff look with horror at the fact that within a few years we have imported iron worth $80,000,000. Well, now if there had been no duty upon it, it would have cost us about $40,000,000, and the articles manufactured from it would have cost as much less as the difference between 40 and 80. While, on the other hand, if the duties had been so high as to prevent the importation altogether, the price of the exports which paid for it would have fallen in value to a trifle.

I must correct one argument of one of your correspondents. He says that all our exchangeable values are exported, and then all our specie, to pay balances against us caused by excessive importations; that the importer presses the jobber, the jobber the retail merchant, and the retail merchant his customer, the farmer; that all the specie is drawn out of the vaults of the banks; that they diminish their circulation; money becomes scarce, and those who are anxious to buy have not the means; and the farmer is without a market. This is entirely wrong. But a limited amount of specie can be procured to export. The only way in which it can be got from the banks, by the importers, is to obtain discounts at the banks, and then, with the bills thus obtained, make a demand upon the same banks for the specie. This stops immediately all discounts by the banks, and consequently checks all drains upon them for specie. Another way is to pay a premium upon specie; but as the banks are as interested in keeping the specie in the country, as the importers to send it out, they will pay a higher price for it than the importers. By checking the discounts of a bank, you cannot withdraw the bills already issued out of circulation; neither, by any means, can you obtain those bills to present against the bank, without paying value for them, where the bank is in good repute. The amount of currency does not essentially and immediately diminish by a demand abroad. But the ability of the importers and their debtor merchants to obtain *discounts* is effected; but not the ability of a person who is out of debt, and who will not lend the money so that it fall into the hands of the importer. There was no deficiency of currency in 1837, nor has there been since that time. The difficulty was in obtaining *small change*. And if the banks had been in the condition in which they ought to have been, there would have been no difficulty in this respect; nor would any balance of trade against us have prevented them from redeeming their bills, or discounting moderately to persons nowise indebted to importers. Nor is it true that the farmers could not then sell their produce. We never exported more than we have since 1837. In 1840, our agricultural products, exclusive of cotton, tobacco and the southern staples, amounted to $18,000,000. There has also been an unwillingness on the part of our farmers to sell. During those seasons of crop failures, they got such high prices, that, when we had abundant crops, they were reluctant to sell at a diminished price. I refer your correspondent to the official documents for proof that we have exported more since 1837 than we did for the same length of time previous to that date.

In confirmation of my previous argument of the great facility afforded by a national bank to importation, I refer my readers to the "Bankers' Circular, Dec. 31, 1841," and the terrible effects of the present system of banking upon manufactures. In speaking of the prospect for a greater market in this country, they remark: "Now we must say a few words as to the future: and first, let us see if we can find any firm footing on which to build hope. With respect to the affairs of our best transatlantic customers, no second Bank of the United States can be broken down in the year 1842, but one *may* and *probably will* be raised up, in some degree to supply the place of that destroyed." The circular looks upon this event as a great advantage to the English manufacturers, and as necessary to their ability to sell in this market. Now I ask our manufacturers, and those farmers who wish to keep out foreign goods, if this is not most likely to be the true cause of all our excessive importations. My limits will not allow me to pursue this subject further. Much, much more can be said upon it; and I hope that every farmer and every mechanic will study it thoroughly.

New-York, February, 1842.

Credit is a thing wholly dependent upon *opinion*. The word itself, indeed, has the same meaning as the word *belief*. As long as men *believe* in the riches of any individual, or any company, so long he or they possess all the advantages of riches.—[*Cobbett*.

Agriculture.

[For the Northern Light.]

REVIEW OF THE WEATHER, ETC.

BY C. N. BEMENT.

The early part of the last month will long be remembered, for the severity of the freshet in this section, as well as in many other parts of the country. On the 2d, we had a sharp south wind, a dark and cloudy sky, and some rain in the night. On the following day the wind varied, sometimes from the south, then from the west and south-west, and the next moment from the south-south-east; the vane in constant motion, playing from one point to another in quick succession, and finally settling, at night, in the south, and the rain poured down in torrents. The earth being locked in icy fetters, refused to receive the water, which soon found its way to the streams, and swelled them to such an extent as to overflow their banks, and carry destruction to their very outlets. Fences, barns, stacks of hay, dams, mills and bridges, were swept off and hurled down the mighty torrents, marking its course by leaving fragments of its fury on its borders. This caused a rise of water in the larger streams, and on the 4th we found the noble Hudson had burst its icy chains, and declared navigation once more free, and on the 6th a steamboat arrived from New-York! It is said, the water in the Hudson was as high as ever before known, and its rise very unexpected; in consequence of which much damage has been caused on its banks; as large quantities of lumber, furniture, and stacks of hay, were seen floating down past the city. Accounts from every part of the country have reached us, detailing the disastrous effects of the storm.

On the 8th we had a slight fall of snow, and the weather became colder until the 11th, when it moderated, and on the 12th we had a slight fall of rain in the night. On the 14th, wind S. W., some flurries of snow during the day, and at night changed to the N., cold increased, and some snow fell. On the following morning, wind still in the N., the sun burst forth in all his glory, and the snow disappeared in the twinkling of an eye.

On the 16th, wind south, a hard frost the preceding night, commenced snowing in the afternoon, and finally turned to rain, when the wind suddenly changed to the S. W., the rain ceased, and the wind increased in severity; and if we have cause long to remember the freshet of the 5th, we have reason not to forget the tremendous hurricane or tornado on the night of the 16th. Trees that had withstood the blasts of an hundred winters were laid low; and in an adjoining county, forests of 60 to 80 years standing were prostrated, and barns and fences blown down and scattered in every direction. In this immediate vicinity it was not so severe, although the bed on which I lay (for I could not sleep) trembled with every blast, every one of which appeared a little harder than the preceding one.

From the accounts received from some sections of the country, we have reason to be thankful to a Divine Providence that it was no worse. The injury of persons and destruction of property at Mayville, Chautauque Co., is represented as truly melancholy. Houses, shops, barns, and even churches, have been demolished or moved from their foundations; and although we hear of no lives having been lost, some limbs were broken, and considerable injury sustained by individuals. In one instance, it is said, a child was driven through a window and carried ten rods by the violence of the wind. Hogs, geese and fowls were seen flying in the air, and carried quite a distance; some killed, some maimed, and all more or less injured. Many buildings were unroofed, and trees and fences were scattered in every direction. "No words," says the writer, "can convey an adequate idea of its appalling appearance or its calamitous effects; and none, unless they have witnessed the like, could believe the truth as it is."

On the 17th, the wind W. of N., cold, cloudy and cheerless, about two inches of snow on the ground—wind ceased blowing in the afternoon, and settled down into real winter weather. On the 18th, wind changed to the south, and commenced raining, and continued until noon, when it changed to the north, with some flurries of snow in the night, after which we have had fine weather until the 26th, when the wind suddenly changed to the N. E., and it commenced hailing in the forenoon, and turned to snow in the afternoon, which continued until night. It snowed some on the following morning, wind at N., when it suddenly changed again to the south, the sun making his appearance; the snow was soon in a running condition, and on the following day was among the missing, or the things that have been.

Three Hills Farm, March 1, 1842.

[For the Northern Light.]

TREES.

BY WILLIS GAYLORD.

When we recollect that but a comparatively short time, not half a century, has elapsed since this populous and fertile region was an unbroken forest, it seems strange that it can be necessary to urge upon this population the importance of paying attention to trees. Thirty-five years ago, then a child, we passed the boundaries of civilization, as the settlements in the vicinity of Utica were then considered, and plunged into the vast wilderness that lay over the whole country to the Niagara. Only here and there, at the distance of miles, a blue smoke curling above the tree tops told of a solitary settler, or perchance a hamlet of half a dozen families. Before this small beginning we have seen the vast and beautiful forests melt away, until but mere remnants of them are to be found; and we are now imperiously called upon to make vigorous efforts to replace those woodlands that improvidence has prostrated. We have called these primeval forests beautiful, and so they were, beyond what those who have never seen our native forests in their grandeur and magnificence can readily conceive. And what delightful fragrance was wafted from these boundless groves, where the murmuring wind swept over the branches of the linden and tulip tree, and came laden with odors from millions of flowers. Gladly would we now exchange, at times, the broad sunny fields and flock-covered hills, or the bustle of commerce and trade in our cities of yesterday, for the old ramble among the venerable columns that rose high and towering, or the ride on the still and mirrored lake, in the Indian canoe, where silence, and beauty, and nature only were found. The wild deer stood and gazed as we floated by; on the shore the speckled fawn approached us, half undecided whether to consider us enemies or friends; the eagle sat undisturbed at our approach; and the feeling crept insensibly over the lover of nature, that thus it must have been in Paradise.

From those days to the present, we have had a passion for trees; we can conceive no beauty in the landscape without them; and dreary and naked seems the mansion which stands unprotected and unadorned by the orchard, the copse, and the woodland. When some of the British officers of our war of the revolution affirmed in the presence of Dr. Johnson that they had found among the Indian tribes of the northwest, a white woman so attached to the habits and customs of the natives that they were obliged to bind her in order to return her to her friends, he exclaimed to the narrator, "Sir, she was a brute, not a woman; she was a talking cat." With all due deference to the opinions of the great moralist, we would ask, when was it known that a child of our forests voluntarily left them for the permanent abode of civilization; and when has the lot of the white man been cast among the Indians, no matter from what cause, without their soon preferring the forest to the city, the free life of nature to the arbitrary conventional forms of what is termed civilized life?

We think we can in some measure appreciate the cause of this. We never could roam in our primeval forests without a deep feeling of the littleness of man and his works. In his noblest works man has only been an imitator of nature, and that a feeble one. Let a man walk in our forests and in the massive trunks rising around him, in the gracefully sweeping branches, in the beautifully spread and interlacing foliage—he sees the original of what man has attempted to imitate, in the domes and columns and arches of the proud cathedral. We involuntarily feel that the "groves were God's first temples," and in the midst of solitude, silence and beauty, the heart expands in gratitude to the Maker of these glorious works. The untutored savage is not deaf to the religion of nature; not less than the white man, he beholds the proof of a first cause, the Great Spirit, in the volume of his works opened around him; in the whisperings of the wind he hears the powerful voice; and if his worship is less refined, who will venture to say that it is not as heartfelt and acceptable as if offered in "houses made by hands," and accompanied by all the ceremonies that pomp and forms can give. We shall never wonder that an Indian loves the woods; his earliest associations are bound around the trees that overhang his father's wigwam; and no one who has not long lived among trees, and been taught to regard them as familiar friends, can imagine the strength of such associations.

There is not a more lamentable and incontrovertible proof of the want of taste in individuals or communities, than a neglect to preserve or plant trees. What is it that most forcibly strikes an American on

landing in England? It is the cottages of the poorest peasants surrounded by trees; the clumps of planted trees on the grounds and around the mansions of the great and the rich; and the fact, that in many places where cultivation has been carried on for two thousand years, there is now as much wood as in many places of this country that fifty years since was an unbroken wilderness. He sees that there the desire is to preserve, here to destroy; there they plant, here they continue to cut down; there trees are allowed to border cultivated fields, without fear of consequences; here, every tree that can cast a shadow over the ploughed furrow is doomed to fall, as if the additional peck of wheat or corn produced could compensate for their destruction.

In this country, what places most arrest the attention of the traveller, and make him linger on his way; what are the cities, villages or mansions, that most excite admiration, and most deserve it? They are not those where nothing but brick and mortar, and the hum of business, and the rivalry of getting rich, and costly but naked mansions, are seen every where. On the contrary, it is where the streets planted with trees, mansions embowered with verdure, and gardens laid out and cultivated with neatness and taste, show that the individuals or the community possess not only wealth, but the mental acquirements, perception of natural beauty, and regard to the laws that regulate comfort and health, requisite to make a proper use of the good things with which they are entrusted. What part of Boston does a citizen exhibit with most pride to a stranger? Is it the wharves, or the shipping, or the noble buildings? No; he takes him to the Mall, and points out the long avenues of elms that gracefully arch those beautiful walks, as the principal ornament of the city. So with New-Haven. The beautiful bay, the overhanging cliffs of the East and West Rocks, the noble line of colleges and public buildings, all are striking objects; but in nine cases out of ten, the mind, when reverting to this truly delightful city, lingers longer under the shadow of those magnificent trees that border its walks, and in many instances overarch its streets, than with any of the other objects enumerated. Of our villages, let any one acquainted with Northampton, in Massachusetts, or Cortland, in this state, compare them in this respect with many others of far greater pretensions to business and perhaps wealth, and they will instantly feel how much is gained by a trifling expense in planting public places or streets with trees. Comfort, health, and beauty, are in this case fortunately united; and individual welfare is not found inconsistent with the public weal.

Trees, considered as objects of cultivation, may be divided into three kinds—*fruit trees*, or those cultivated for their products, as the apple, pear, peach, cherry, plum, &c.; *forest* or *timber trees*, such as the pine, elm, locust, oak, chesnut, &c.; and *ornamental trees*, which are planted without particular reference to their value as timber; of this kind we mention the Lombardy poplar, the weeping willow, the mountain ash, and others. It sometimes happens that trees may be planted which combine all these three requisites, and are useful for timber, produce fruit, and are highly ornamental; but these properties are usually considered and treated as distinct, and for the purpose of a convenient classification, it may be well to allow the several kinds to remain separate.

In planting fruit trees, care should be taken to give them the right kind of soil, a suitable location so far as regards exposure, and set them at a proper distance from each other, in the plantation or orchard. It is well known, that fruit trees, to produce fruit of the best quality require attention in all these respects; that particular soils only give grapes, apples, and quinces, and indeed fruits generally, a certain highly prized richness and flavor, and that from these only can the best ciders, wines, and sauces be made; that some trees require a full exposure to the sun in order to mature their fruit, while others will do well in the shade: and that of other kinds, some demand ample space to expand their branches and their roots, while some will bear closer planting, with little or no injury. As a general rule, it may be remarked, that in planting fruit gardens the tallest trees, such as the pears and the cherries of the highest growth, should occupy the northern parts, and then a gentle gradation to the lowest, or those that exist only as shrubs. Fruit orchards should also be protected from the north and west winds where it is practicable, as the influence of cold or strong winds is always productive of more or less injury to fruit.

As timber trees, the most valuable are the several species of oak, (*Quercus*) particularly the white oak, the elm, of which the kind known as the red elm (*ulmus rubra*) is the most desirable and valuable; the chestnut, sometimes used for timber, but of the greatest value for rails; and the locust (*robinia pseudacacia*). When, then, we look at the quantity of timber that is annually required for buildings, farm and otherwise; at the immense demands made on our forests for the structures of state or individual utility, such as rail-roads, bridges, &c.: and when we remember the time which must elapse before woodlands, if now planted, or allowed to spring up from those we are now falling, will become of a size proper for building, the necessity of being up and doing will be apparent to all.

We have not here alluded to the timber required to construct and keep in repair our navy, our merchant ships, our steam-boats, our canal craft, though the time is not distant when for these purposes the oak of Florida, the locust and cedar of the Alleghanies, and the pine of the *disputed territory* in Maine, will be put largely in requisition. Calculations made with great care and from the most authentic data, in Great Britain, prove that oak planted in suitable soils requires from seventy-five to one hundred years to attain a growth proper for ship timber, or for the general purposes of architecture; and an examination of trees that have grown on lands formerly cleared in this country* shows that the time is about the same here. It is also known, that of such timber, growing at the proper distance to give it the greatest value, if cut at the growth of seventy-five years, fifty acres of land must be cut over, and if allowed to stand one hundred years, forty acres must be stripped, to furnish timber for a ship of the line. We take pride, and justly, in our navy; we refer with pleasure to our extensive works of internal improvement; we use timber without stint for every purpose where it is available; but we seem to forget that ages are requisite to furnish the timber that will be required for their renewal. Take the article of fences alone. We very much question whether, taking the country from Utica to Buffalo, for twenty miles on each side of the great Seneca thoroughfare, there is rail timber enough standing to construct two thirds the length of worm fence that is now existing in the same district —to say nothing of the fact that a very large portion of the wood that is suitable for this purpose must of necessity be devoted to other uses. Our country, even to the islands of the great lakes, is cleared of its red cedar for naval and rail road architecture; and the prices which are obtained for the yellow locust, in our seaports, shows the scarcity of the wood, and the necessity there is for its use in ship or boat building. The cedar is of slow growth; but the locust, in favorable soils and exposures, grows rapidly, and perhaps there are few uses to which the soil of such places can be put more profitably than the cultivation of this tree. Should the destruction of our timber trees go on for a few years longer as it has done for a few years past, we shall see the northern part of the peninsula of Michigan furnishing its quota of timber to our seaboard, and the pine forests that border the south of the Superior, floated down our canals, to supply the chasm that waste and improvidence is sure to create. The great difficulty in the way of planting for timber, lies in the reluctance we feel to wait so long a time before a profit can be realized. Who thinks of looking so far forward as to make calculations for the welfare of the second or third generation, when he can reckon his seven per cent. with compound interest in his own life time? And besides, such is the locomotive disposition of the American character, that should a man plant for the benefit of his children, it would be a thousand chances to one if the juvenile progeny, before the trees had reached the size of hoop or hop poles, were not domesticated in the prairies of Illinois or Iowa. There is no alternative, however, than either to plant timber trees, or have our country naked and destitute, our farms without fences, and our buildings rotting down without the means of repair. We say then to all, commence the planting of timber trees without delay. [To be continued.]

Otisco, February, 1842.

SEED.—Some kinds of seed yield a much more valuable crop than others. This may be seen in different varieties of potatoes, wheat, and grass. It will often pay cost and interest to take some pains in this matter. Old pasture and mowing land are apt to lose the more valuable grasses, and require to be renewed. Plump seed grain gives a better start to the plants when young, by affording more nourishment. A ton of weeds in a field of grain, sown sufficiently thick, diminishes the weight of the crop nearly to the same amount. One dollar's worth of labor cleaning the seed grain and pulling weeds, would in many cases prevent this loss.—[*Monthly Visitor.*

* The beautiful groves which have sprung up on the ancient fields and over the graves of the unknown occupants of what is now the town of Pompey, in Onondaga, and the vicinity, exhibit abundant proof, in their annular rings, of the correctness of this statement.

[For the Northern Light.]

WINTER BUTTER.

BY C. N. BEMENT.

Every person at all familiar with the process of making butter, is well aware of the difficulty attending the success of making it in the winter. It is generally known, too, that butter made at this season of the year is very white, crumbles, and is deficient both in flavor and color, and not considered fit for the table. This arises partly from the cows being kept, as they generally are at this season of the year, upon dry food, and partly from not managing the milk rightly.

In the statement of Mr. Merrifield, who took the second premium for butter at the late meeting of the State Agricultural Society, he says—"In winter our milk stands twelve hours, is then removed to the stove, and scalded over a slow fire to near boiling heat; the pans removed to the cellar to cool; the cream only churned; the butter placed in the coolest part of the house will keep good any length of time." His butter was much admired for its rich yellow color and fine flavor, but I should think the scalding process rather tedious and troublesome.

On perusing the 7th edition of "Mowbray on Poultry" a few days since, I found the following process as practised in some parts of England, which struck me very favorably, and I was determined to try some experiments. The following is the proccess, as detailed in the above work, which I have transcribed, as it may not be in the hands of all the readers of this journal.

"A peculiar process," says Mowbray, "of extracting cream from milk, by which a superior richness is produced in the cream, has long been known in Devonshire; this produce of the dairies of that county being well known to every one by the name of 'clotted' or 'clouted cream.' As there is no peculiarity in the milk from which this fluid is extracted, it has been frequently a matter of surprise that the process has not been adopted in other parts of the kingdom. A four-sided vessel is formed of zinc plates, 12 inches long, 8 inches wide, and 6 inches deep, with a false bottom at one half the depth. The only communication with the lower compartment is by the lip, through which it may be filled or emptied. Having first placed at the bottom of the upper compartment a plate of perforated zinc, the area of which is equal to that of the false bottom, a gallon of milk is poured (immediately when drawn from the cow) into it, and must remain there at rest for twelve hours; an equal quantity of boiling water must then be poured into the lower compartment, through the lip; it is then permitted to stand twelve hours more (that is, twenty-four hours altogether); when the cream will be found perfect, and of such consistence that the whole may be lifted off by the finger and thumb. It is, however, more effectually removed by gently raising the perforated plate of zinc from the bottom by the ringed handles, by which means the whole of the cream is lifted off in a sheet, without remixing any part of it with the milk below. With this apparatus I have instituted a series of experiments; and as a mean of twelve successive ones, I obtained the following results:—4 gallons of milk, treated as above, produced in twenty-four hours, 4½ pints of clotted cream, which, after churning only fifteen minutes, gave 40 oz. of butter;—4 gallons of milk treated in the common mode, in earthen pans, and standing forty-eight hours, produced 4 pints of cream, which, after churning ninety minutes, gave 36 oz. of butter. The increase in the quantity of cream, therefore, is 12½ per cent, and of butter 11 per cent."

From the above hints, I caused a pan to be made, three and an half inches deep, and very flaring; another made six inches high on the side and not so flaring, and just large enough to receive the other pan, and then carefully soldered together at the top. Two short tubes were soldered into the lower pan, one about one inch in diameter, for pouring in the water, the other tube very small, on the opposite side, to let the air escape when admitting the water, and also to admit the air when the water is to be turned out.

With this apparatus I commenced a series of experiments, and the following are the results:

EXPERIMENT 1. Strained 11 lbs. of milk fresh drawn from the cow into the pan; after letting it stand twelve hours, put four quarts of boiling water into the under pan, and secured the aperture with a cork. Thirty-six hours after the cream was carefully taken off, being very thick and tough, and of a fine yellowish color. Twelve hours after it was churned with a spoon, which occupied seven minutes, and produced 5 oz. of butter.

EXP. 2. The same quantity of milk was put into the same pan, and after standing twelve hours four

quarts of boiling water was introduced, and suffered to stand twenty-four hours, when it was skimmed, and immediately churned, which took eleven minutes to convert it into butter. Produce, 6 oz.

Exp. 3. The same quantity of milk, fresh drawn from the cow, was put into the pan—stood twelve hours, when four quarts of boiling water was introduced, as before, and after standing twelve hours longer, was carefully skimmed, and twelve hours afterwards was converted into butter in *one minute*. Produce, 7 oz.

The three parcels were put together, and after being well worked they weighed, with a common pair of steelyards, 1¼ lb., being a fraction less than 9½ quarts of milk to produce one pound of butter; and it is my opinion, had it all been subjected to the same process as example 3d, it would have been considerably increased in quantity. It must be observed, however, that the milk was taken from a two year old heifer, half Durham and half Ayrshire, and the difference in quantity of the butter when separate or when put together, may be accounted for by the difficulty of weighing so small a quantity with the steelyards.

Exp. 4. Strained 11 lbs. milk fresh from the cow into a pan of the same size, and after standing thirty-six hours it was carefully skimmed, and the same process adopted as before to convert it into butter. After diligently working at it 90 minutes, "it was no go," or in dairy language "it would not come." We then tried to coax it by turning in a small quantity of cold water; then tried hot water, but it was of no use. It was then set by for twelve hours, and then tried again, and after working it for half an hour it was given up in despair; "come it *would not*," and so we concluded to let it "go," to the—cook. One other experiment, on the same principle as the foregoing, was afterwards tried, and the result the same; after churning the cream sixty minutes, it was frothy, and had the appearance of whip-syllabub more than any thing else that I can compare it to.

Two other experiments were tried on the "high-pressure" or hot water principle, which resulted about the same as Nos. 2 and 3, except the time consumed in churning—one being four and the other seven minutes. The difference was caused, probably, by the temperature of the weather.

Since writing the above, we have tried two more experiments, with the same quantity of milk, after standing twelve hours, and then adding the hot water; one was churned immediately, which took seven minutes—produce, 8 oz. The other was churned twelve hours after skimming, and was converted into butter in 10½ minutes—produce, 8 oz. In these two experiments, the quantity is considerably increased, being at the rate of 1 lb. to 8 quarts of milk.

From the above experiments, I am well satisfied of the great advantage arising from this process, and have no doubt but a great saving may be made, and *good butter* produced, even in the coldest weather. And I would recommend it particularly to those who only keep one or two cows, as by this means a small family could be supplied with their butter. And I am also satisfied that it is the best plan to let it stand only twenty-four hours, and churn immediately after skimming.

I would suggest an improvement, which I intend to adopt, in the pans, which would be a saving of expense, besides some trouble in washing and drying the pans. Let the under, or water pans, be straighter on the sides, and as much smaller as to strike the upper, or milk pan, about one inch from the top, and fit tight, so that the steam will not escape, having a small tube inserted in the side for admitting the hot water, and a small hole on the other side to let off the air, as in the one before mentioned. Being separate, they can be washed and dried without difficulty.

Butter is one of the staple productions of our state, and every hint that serves to improve its quality or increase its quantity must be useful. There are various methods of making butter, and there is certainly a vast difference in its quality. One cause of this difference may be ascribed to the herbage or food upon which the cows are fed, the breed of cows, or the season; but more generally in the management. Every one thinks his own method the best, and, *too wise to learn*, sneers at the very idea of philosophy or science having any sort of connexion with this humble branch of domestic industry. All I ask of the unbelievers in new theories is, to try the above method, and I am certain they will be convinced, and well satisfied with the results.

A writer in one of the old volumes of the New England Farmer says, in regard to the color and flavor of butter, "to correct both these evils, take four yellow carrots, of about one and a half inches in diameter, to cream enough to make ten pounds of butter, and after washing them, to grate and cover them with milk, and after they have stood ten minutes, to squeeze them through a cloth into the cream, and the effect has been to make the butter come quicker, and give the color and *sweetness* [?] of May butter." Mrs. B., who sits at my elbow, suggests as an improvement on the above, to *give the carrots to the cows*, in sufficient quantities, and readily believes that, used in that form, they will impart a fine color to the butter, and even add a richer flavor—that substance, and not coloring matter, is required to give much flavor.

Three Hills Farm, March, 1842.

Literature and Science.

[For the Northern Light.]

THE CREOLE MAIDEN'S LOVE.

[Translated from the French of Eugene Chapus, by A. G. Johnson.]

The vessel, a three-master from Havre, had just hove in sight of the cape of Havana, and was cutting her way briskly through the phosphorescent waves of the tropical sea. The night was beautiful, the sky was clear, and the perfume-laden breeze indicated the near approach to land.

On the bow of the ship sat one of the passengers, whose solitary habits had been remarked by all since the first day of the voyage. His eyes were directed towards the point where the coast of Cuba was still but dimly and indistinctly seen, and he seemed to gaze with a mournful and all-absorbing pleasure. He was a young man, whose face wore an expression at the same time earnest and pensive. Nothing about him, however, merited particular attention, unless it were the magnificence of his eyes and the long arch of his eyebrows, clearly defined on his pale forehead.

The next day the vessel was anchored in the bay whose shores are so poetically indented and scolloped, and at the head of which rise the walls of Havana.

If you wish to see old Spain upon American soil, you must go to Havana and look into its oval-shaped bay, swarming with canoes pulled by naked negroes, and watch her fifteen hundred merchant vessels continually coming and going.

But this sight had no attraction for the traveller. He had hardly stepped ashore before he enquired after the address of Senor Alonzo Huerta, a rich ship-owner of the country, to whom he had a letter of introduction.

Senor Alonzo, at whose house he presented himself, received him with every mark of respect, and the warmth of a hospitality rarely put to the test. He had withdrawn into the hall, where he was accustomed to take his siesta. Yielding to the charm of the *hacer nadu*, he was swinging to and fro in his hammock, at the sound of a guitar played by a young creole maiden, who was also swinging in another hammock. The Spaniard rolled a cigar between his fingers, while a negro with a fan of peacocks' feathers cooled the temperature of the room, hung round with perfumed tapestry.

You know the indolence of the European Spaniards; they are surpassed in effeminacy, (would you believe it?) by their American brethren. The former can be compared to the latter in only one thing—their pride. No Chinese mandarin carries that sentiment farther.

Alonzo made a sign to the negro who announced the stranger, and he immediately offered him a *butaca*—a kind of easy chair.

Ave Maria purissima, began the stranger, according to the Spanish form of salutation.

Sin pecado concebida, replied the creole maiden.

The first words exchanged and the common-places of politeness gone through with, the new comer asked Don Alonzo if he had any knowledge of a a Marquis del Ritto, a proprietary of the island. Stop—Marquis del Ritto! Faith, I recollect that name. I have had business with him.

The stranger started.

The merchant took his segar from his mouth, blew upwards a puff of fragrant smoke, and called for his principal clerk, who was in the next room.

Senor Corrubedo, do you remember a Marquis del Ritto, with whom we once traded for some sugar and coffee?

Yes, sir, promptly replied the clerk, whose head contained the name of every proprietor, planter, merchant, and overseer, with whom the house of Huerta had ever had any dealings; that name is on our books, but it is a long time since.

Look for the date, and—

His place of residence, quickly added the stranger.

That is the same thing, said the clerk Corrubedo, turning over the large leaves of the day book upon his desk.

Received one hundred and fifty hogsheads of sugar from the Marquis del Ritto, of Guoyama. *Received* two hundred bags of coffee, &c.

It is he, said the young man.

I am happy, sir, to have been able to procure for you the information you wanted.

Poor youth! his blood all rushed back to his heart when he heard these words fall carelessly from the lips of the creole; his face glowed with the light of present happiness and pleasant memories.

Guoyama, pursued his host, is some distance from this place. It is at least a twenty-four hours' journey. There are two ways of going there; the one by land, in a carriage at first, and then on horseback, for there is not a carriage road all the way; the other by water as far as Massipa, and thence on the back of a mule. You will find at the wharf boatmen as many as you please, and you can easily agree with one of them on your passage to Massippa.

The young man thanked the senor for his kindness, and went down to the port, where he found a crowd of boatmen, who asked nothing better than to take him wherever he wished. It was near midnight when he started.

When you first visit a strange country, you feel an insatiable desire to see and learn, which must be satisfied at every cost; but this is impossible, if your mind is weighed down by a thought in which the interest of a whole life is concentrated. A tourist's heart must at first be like his journal—white and empty. It is his business to fill it.

The guest of Senor Alonzo did not possess this freedom of heart. On the contrary, if this had been the first time he had been in Havana, the charms of nature in this tropical clime would have had no attraction for him. The preceding year he had lived at Porto Rico, one of the Spanish isles in the great chain of the American Archipelago. What had he done there? And why had he come back to Cuba?

George had in early youth felt a strong predilection for the fine arts.

His first attempts in painting were so successful, that those who had already begun the life of an artist and had cast their eyes upon his drawings—many of them sketches full of poetry, dreams that the crayon or the pencil had realized—saw in him the promise of future excellence. They talked to him of Italy, and of the necessity of going there to complete his studies; but the school of Rome was in his eyes of no advantage, except to one who looked for promotion from the hands of the director of the French Academy. He thought the simple study of nature was a sufficient inspiration in every country, with the difference, perhaps, that northern countries having a less vigorous, bold and showy scenery than Italy, presented greater obstacles to be overcome; and pursuing his conviction, he thought there were countries still more happily endowed than Italy for the study of the picturesque, especially those between the tropics. With the scenery and sky of Italy we are familiar, but in those lands beyond the sea there are skies and landscapes still strange to the European eye.

One day, then, he bid adieu to the city of his love—to Paris—and rich in his pencils, his crayons, his cartoons and his albums, and rich in his anticipations of the future, he sailed for Porto Rico. Of all the beautiful Antilles, this island was least visited by Europeans, and this was reason enough to fix his determination. Artists who are not mere copyists will understand him.

In fact, no place can be superior to these colonies for inspiring the high poetic faculties. Here a thousand virgin colors are spread on nature's palette. Slavery prevailing every where gives rise to a thousand new emotions. You see a whole race groaning under oppression and suffering, and vengeance is smouldering in the breasts of the feeble, like volcanic fires in the bowels of the earth, and daily threatening to engulph the oppressors. How leaps the heart at the sight of this deep degradation of man! Be you artist, poet or philosopher, compare the mild sufferings of old civilization with those of this country, where you cannot take a step without running against a thorn which makes the heart bleed.

George gave himself up entirely to these lively emotions. He wrote and sketched by turns, under their powerful inspiration.

In the midst of his other poetic studies, came also the poetry of love. It was perhaps an evil day when he met Anitta. But God had so willed it. She seemed to him the master-work of the American creation. Never had his eyes rested on a form so slight and agile; never had a figure so exact in its outlines stood before him; but while he saw in her every perfection of material beauty, he saw too that in her soul the fires of self denial and devotion burned inextinguishly. Anitta loved at once, not be-

cause to love is a general law, and she had before felt the sentiment indifferently for all, and now by chance for him who stood before her; but because she had formed in her fancy a beau ideal of a man, of which George was the impersonation. Such women are unknown in Europe. A woman loves a man among us, because she is a woman and he is a man. She loves because she is eighteen years of age, and it is a rule of society that she must then fall in love.

George, with his poet's soul and his poet's imagination, appreciated the heart of Anitta; love flashed upon him with all the brilliancy of a flame that has just burst from its confinement. In France he had dreamed of love—here his dream was realized.

Do not swear that you will always love me, said she. You see I am nothing but a poor creole; if I believed in your love, I should live in the thought, but if you should cease to love me I should die.

Reassure yourself: you are so beautiful, so sweet, and there is so much intelligence in that little head, that you well know, Anitta, in my country men would throw their fortune and their rank at your feet.

Anitta belonged to that class whom the customs and laws of the colonies hold in an iron bondage. The sole advantage that she possessed was, that she was free as it is understood in that country, that is, she had the right to dispose of her person; a master had not over her the absolute right of life and death. George, brought up in France, a stranger to the notions which govern the morals of these countries, could not imagine a single reason why he ought to reject the love of Anitta. Moreover, he sought in vain upon the countenance of this beautiful child the proofs of her origin; she was not darker than other Spanish women reputed white. Only it was said of Anitta, she is a creole; just as among Mohammedans they say, he is a Christian—and as among Christians to this day, and still in Germany, he is a Jew.

The love of the young French painter for Anitta soon aroused the susceptible pride of the whites. It was with extreme reserve that he was henceforth admitted into their society. But what cared he for the coldness of a society that could do so little for his happiness? He was to live at a distance from them, and Anitta would accompany him. In their long walks, and in their daily and sweet companionship, she lavished on him more of heart-felt anxious love in a single day, than an European would show during the whole continuance of her passion.

George thought little of the disdain of the whites, when at evening he was seated on the grassy savannahs of Porto Rico, or swinging in their luxurious hammocks, listening to the notes of the guitar and the voice of Anitta, chanting sweet native melodies, which never were echoed by the banks of an European stream.

In the colonies there is a disease that comes suddenly among the people, and takes every tenth person; it is the yellow fever, one of the bitter fruits of slavery; it seems sometimes to pursue the European to his native soil, as a punishment for this slavery of the Africans in the new world. When it makes its appearance in the Antilles, it becomes a pestilence, against which all the resources of art are ineffectual.

One day George was attacked by a sudden headache, his eyes became sunken, his pulse beat with unusual violence, and his limbs were struck with a paralysis.

The pestilence had seized upon him.

Had it not been for the danger which threatened the life of George, Anitta, perhaps, would have been glad of such an opportunity to prove her devotion and self denial. How many hours she passed by the side of the couch where lay her lover, wasted almost to a lean and livid skeleton! How fast flowed her tears in secret—how many fervent prayers she offered up to the blessed Virgin! It was wonderful to see how she endured watching and fatigue, that would have worn out a stronger frame.

Fly from me, Anitta—the disease is contagious—take care of your own life.

You are talking nonsense, George. Of what contagion do you speak? You have not the yellow fever. Here, give me your arm, put it round my neck—see, I put my lips to yours. The yellow fever! If you had that terrible disease, could I do so without danger!

George, who did not lose courage on account of the danger that threatened his life, saw the devotion of Anitta. He had not a word of reproach to address to heaven, while all his sufferings were repaid by the gift of such a heart. And yet his misfortunes were great and profound; for while he was tortured with disease, want, poverty, that other pestilence, knocked at his door. For some time his friends assisted him, but their sympathy was by little and little completely exhausted.

At last, God seemed melted by the tears and sorrows of this poor maiden. George resisted the attacks of his disease. He was among those whom it did not strike down in its way. The pestilence spared him, but still he was haunted by the lean figure and tattered dress of poverty. Thus exposed to all the miseries and wants of life, George could not hope completely to re-establish his health. You do not escape so easily from the grasp of the yellow fever; and woe to you if the pestilence visits the country a second time and finds you there, as the doctors say, predisposed to the disease; it is a sentence of death without benefit of clergy.

George must leave the colony, said the physician; he must go; his native air only can restore his strength and life; I cannot answer for him if he stays here.

My God! spare him, take me! but let him live—let him live! said Anitta. She prayed every morning at the feet of her Madonna; and every morning and evening when the bell sounded to prayers, you could see in one corner of the church a woman praying, whose sobs stifled the voice of supplication.

George must leave the country, repeated the physician.

He must go—but how? asked Anitta. And her spirit fell at the thought of his poverty.

One day she folded George in her arms, and held him thus a long time, pressing him closely.

Do you know, my dear, that I feel my life waning away? Do you not know that my life is thy life, and that this climate is fatal to you? If you remain here, and I see you daily sinking, I too shall droop and wither.

It is not the will of God that we should part.

No, George. God is very kind to us, he wishes to spare your life; this very night an idea has come to me from heaven.

She hung upon his neck. Do you love me well? said she—and without giving him time to answer, yes, yes, you do love me, and I wronged you in speaking thus. Now listen. I am at your feet. Promise to grant me whatever I shall ask.

I do not understand you, Anitta. Speak quickly; have I a wish which is not thine?

George promised, however, what she asked.

And now, will you solve me this strange riddle?

No, said she, it is my secret; and she smiled so sweetly that George thought it was all a mere freak of fancy, a whim, the meaning of which would be known soon or late.

In the port at that time lay a vessel bound for Havre. Many of those who were recovering from the yellow fever had engaged passage in her for Europe.

George would sometimes, when walking on the shore of the sea with Anitta, involuntarily cast a look to the side of the harbor where the ship lay at anchor, and heave a deep drawn sigh. Anitta saw, but appeared not to see it. However, her face began to wear a sadder expression; her voice became tremulous in its tone; if tears sometimes moistened her eyes, she hastily brushed them away. But George was so accustomed to these bursts of sensibility, that he sought for no explanation out of the ordinary course of their affections.

One morning, as she was preparing to go out, she took George's hands in hers, and fixing her eyes on his face, so altered by sickness, she burst into tears.

Farewell! George, said she, in a voice full of emotion.

Au revoir! Anitta; do not be out long.

Anitta made no reply. She went out, covering her face with a veil.

The forenoon passed, and Anitta did not return to the house. The night passed, and she came not. Upon her bed, George found a note in Anitta's hand: "Do not be anxious, dear heart, you shall soon hear news of me."

But two whole days passed wearily away, and he was still alone. He was like a bird with sorrowful song calling back his mate brought down by the shot of the hunter.

Suddenly a negro presented himself before George. He was out of breath; the perspiration stood upon his forehead, and moistened his woolly hair. He asked for M. George; he had a letter and money for him.

Whence came this silver?

I do not know.

Who sent it?

The letter will tell.

"Dear George—You have sworn to do what I shall demand of you. Well! listen. I require you to go immediately to Europe; leave this country, so fatal to the re-establishment of your health. Go, and when you have regained your health, come back again to our savannahs, and thenceforth you will be acclimated, and your life no more in danger. Go quickly, George; go and return, not to live in the Antilles, but to bear me to France; to that France of which you have so often spoken, where our destinies shall be one and the same, and where the pure impulses of the soul are not stifled by prejudice. My resolution is taken, be assured, George, and that without recall. You shall not know where I am, so long as you tarry here. Strive in France to save money enough to take us both there; but more than all, be careful of your health. Go, and I shall be content, George; and I swear to you by my love, by the Virgin Mary, that you shall know where I am after you have reached Europe. Ask not how I have procured the money I send you; it is enough for you to say that you accept it of Anitta. You know me; you know how devotedly I love you. There is nothing I would not do for you, even to the sacrifice of life; but I would refuse the wealth of a world, if in accepting I should give you a moment's pain. Go, then, dear George," &c.

Never! was the first exclamation of George; never will I go without you.

Where is Anitta? demanded he again of the negro. He might as well have spoken to a statue.

Very well, you will not answer. Return, then, to Anitta, and tell her I wish to speak with her, if it is only for a few minutes.

The negro made a sign that he would not.

Why?

Anitta is far away at this very moment. She went with some Spaniards who have gone to Havana.

Oh! my God, is that true?

Yes, said the negro, wiping away a tear with the back of his hand.

Just then the physician entered. At the sight of his patient, his countenance expressed the liveliest anxiety.

Come, M. George, you must resolve at once to go. Here is money: and I will add, too, that you should go on Anitta's account. You are in this world her sole protector; without you ——

George could not repress a tear.

Pardon me, said the doctor, I am about to commit an indiscretion. I have thought that, far from your country, from your family, you might not, perhaps, have at your disposal a sum sufficient to pay your passage. I regret that I cannot offer you quite enough, but you will oblige me by accepting a part.

The doctor paused.

I thank you, said George, but Anitta has provided for me. He then related to the doctor all that had passed.

Do not hesitate to do as Anitta bids, monsieur, continued the doctor. He divined the mystery that George did not even suspect.

A few days previous, there had been on the western shore of Porto Rico a public sale of slaves, blacks and mulattos. The Spanish merchants, when their plantations are poorly stocked, forestall this human merchandise. On that day, in one of the markets you might have seen an aged negro offer for sale a young creole girl. At sight of her, a murmur of approbation went through the crowd, and after much chaffering and outbidding, she at last fell into the hands of an old planter from the island of Cuba. The young woman appeared sad, but resigned. The bargain concluded, the galliot weighed anchor, and the old negro retraced his steps to the city.

The departure of George for France was decided upon. You can easily imagine how sad were his thoughts at this departure—how deep was his melancholy at leaving the land that contained every object of his affection.

The predictions of the doctor were soon fulfilled. No sooner had he touched the soil of France, than George recovered all his strength and energy. But his soul was still sick and sorrowful. He waited with a feverish anxiety for the news that Anitta had promised to send him. He dreamed of going back and was ready to encounter anew all the fatigue of the voyage, and the dangers of the tropical climate.

At last the letter came, and the reading of it stunned him, for it revealed a tale of frightful sorrow. Anitta expressed in feeling accents all the pain and grief that his absence had caused her, and detailed minutely every circumstance that had occurred since their separation. She had caused herself to be sold, and she was living in the house of her master. She gave him a particular description of the place of her abode and the character of her master; and, as if her mind had been preoccupied with one thing, she very often broke the thread of her narrative by inquiries after George's health and prayers that he would promptly give her news of it. But there was not a word of regret at her situation—not a word to recall George to her side. This letter was a kind of continuation of her life, a life of complete and unconscious self-denial. It was full of that simple and

rapturous feeling that can flow only from the heart of a woman, whose mind has never been warped by a boarding school education, and by literary pedantry.

No one among the most intimate friends of George attempted to dissuade him from his journey. He sold for a considerable sum his portfolios of sketches and drawings; and as the story of his adventures had excited in his family a good deal of interest, offers of money were made to him from every quarter, so much that he embarked for Havana with ten times more than was necessary for his voyage.

The ship he sailed in cast anchor in the bay of Havana, and you now understand why he was so eager to learn the situation of Guoyama, and to hire a barque to take him thither.

Guoyama was the place where dwelt Anitta.

He was punctually at the wharf where the boatmen were waiting for him.

It was a magnificent night. The moon shone with all the splendor of a tropical sky, and sailing near the horizon, seemed to roll waves of white light upon the waves of the bay.

There was not a cloud upon the sky—there was not a breath of air, and the palm and cocoa trees, so sensitive to the faintest breeze were motionless.—They stood like trees of silence.

A moment after the rattling of the cable and the plashing of the oars anounced their departure. There were seven men in the boat. The captain was a Genoese, the mate a Portuguese: of the four sailors, one was an African, from Mozambique, another from Congo, the third was a Carib, and the fourth an American Indian.

In any other state of mind, George would not have failed to reflect upon the strange freak of fortune that had thrown together in this little boat seven men from such distant quarters of the globe.

This evening the regular cadence of the oars, the silent inspiration of the night, seemed all at once to rouse up that poetic genius, with which heaven has gifted the people of Italy. The captain, though banished, had not ceased to love his country, and with the impassioned voice of an exile, when he dreams of his native land, he sang some verses of an Italian song, which at any other time would have been without harmony, and would have awakened no emotion in the heart. Then he brushed away a tear with his rough hand and said: Oh! Genova, Genova! non mai ti revedro!

This simple lament cast upon the winds of the American ocean by a poor Italian sailor, sounded in the ears of George like a funeral hymn sung over the past splendor and perished fame of Italy; but it also awaked in him a poetical recollection of old Europe. And he in his turn was moved. And must I go back again to Europe? And this time will Anitta go with me?

The boat glided rapidly on—its prow directed towards the mouth of the River Gida.

The smooth and calm surface of the water reflected as in a lake, the glittering constellations of the southern hemisphere, looking like a rich dome of azure silk, strown with sparkling diamonds. The banks of the river wore an aspect continually changing. In its various windings the river presented numerous aspects, more and more distinguishable, for it was already broad day-light; but each bay, each creek, each jutting point of land had its world of animals; while here and there upon the sloping hillsides were perched the negroes' huts, each surrounded with a little garden. These huts denoted the near approach to Massipa, where the voyage of the boat would end.

From this place to Guoyama was hardly half a day's journey. George began to take a more lively interest in the voyage. This was not a route ever explored by the vulgar crowd of travellers. He had left the travelled ways of the world. As he approached the end of his journey, he felt his soul tossed and agitated by alternations of joy and fear.

At Massipa he bade adieu to the river, to the boat, the captain and his rowers; and after about six hours march across this kaleidoscope of tropical countries, his guide showing him some houses scattered upon the brow of a hill at a little distance, exclaimed: "There is Guoyama." Then pointing out a plantation of cocoa trees, he added, "here begins the plantation of the Marquis del Ritto."

George aroused by these words, became pale. His frightened guide thought he was sick.

Among the poor and dilapidated dwellings that composed the village of Guoyama, George looked around for a lodging place. The object of his journey was communicated to his host in these words:

"He was a painter and came to study his art."

The directions he had received at Havana were correct. The Marquis del Ritto was the wealthiest proprietor of the country, and among his numerous slaves there was one the description of whom was very much like Anitta. But as to her they added, she is the favorite of the Marquis. It is said he loves her very much.

George, in listening to these remarks, felt as if the point of a sword had pierced his flesh. "Only," continued the narrator, "never, as to the master's love for his slave, never has there been known such an obstinate resistance as she opposes to the passion of the Marquis. It is absolutely without example. For after other temptations have failed, resort is had to cruelty and rude treatment."

"The slaves in the colonies when they have the misfortune to excite the desires of their masters, are compelled to choose between two things: submission or the lash. They cast themselves into the arms of the whites, saying: Take me master, but do not beat me."

There was, you may well suppose, a kind of consolation for George in the conclusion of the tale which they had told him. He placed his hand involuntarily upon his portfolio, which contained more than twelve thousand francs. The whole sum, if the Marquis should exact it, he was ready to pay as the price of Anitta's freedom. George did not hide from himself any of the difficulties of this business. He resolved to compromise nothing by going to work too hastily.

He knew that the news of his presence would soon spread through the village and that when it reached the house of the Marquis del Ritto, the first word would be a sufficient hint for Anitta.

Thus passed the day. In the evening he rode near the house, that he might catch a glimpse of Anitta. Whether it was an illusion of the heart or reality, he persuaded himself that at one of the windows of the house he saw in the distance a woman show herself, and that she waved a white handkerchief in sign of recognition.

This was all, but it was enough to determine him. He concluded that Anitta knew that he was there, and that he might now present himself at the house of the proud planter.

The night was full of fears and gloomy presentiments. It was a league between Guoyama and the house of the Marquis. In the morning before the rays of the sun beat fiercely down, this distance was passed in a few minutes.

Monsieur, the Marquis del Ritto? inquired he of the first little negro that he met on his way.

At that instant a woman appeared upon the threshhold of the house, to which he had opproached very near.

The Marquis, said she, is not in; he has been out some hours.

Anitta, pale, agitated, trembling, led the way, while George followed scarcely able to stand. When they had entered the hall, Anitta, casting a rapid glance around, assured herself that they were completely secure from observation, and then half suffocated with tears of surprise and joy, threw herself into the arms of George.

After the first burst of passion was over, they looked fondly at each other, and George, impatient to know all the circumstances of Anitta's actual life, questioned her more by his eyes than his voice.

The Marquis loved her, or at least the Marquis had long since resolved to have no other favorite but her. The unexpected resistance which he had met with had fired his passion till it raged with a brutal violence. Anitta foresaw all the evils to which she was to be exposed, and she nerved her heart against them with all the heroism that her love and the sanctity of her oaths could impart. She would have been glad to die for her life was intolerable. Her days were spent in labor and her nights in guarding herself against the perils that threatened her. But as if the love of her master was not enough to vex her, that of a wretched negro, added still more to the discomfort and horror of her position. She was ashamed to speak of it, but one of her master's slaves had dared to confess his ardent passion for her. The fellow's base love had certainly destroyed his reason, for it needed but a single word from Anitta to her master, and his audacity would have been severely chastised. She knew this, but was restrained by her horror of the punishment that inevitably awaited the negro. Thus placed between danger and pity, her situation had for a long time made her life a burden.

All this was said amid the interruptions of tears and caresses. Hold, said she, pointing to a shadow passing across the lattice, we are watched. It is the negro! he has left his work to be near me at the first news that a stranger is come to the plantation.

Ah, well! said George, there is no need of any delay, I will wait the return of the Marquis, I will tell him our history, our love, your devotion, my voyage to Europe, my sufferings, I will offer him all the money I possess.

He will refuse it, said Anitta. Dear George, the Marquis is rich, and more proud than rich. He will never consent to part with me. No, George, no attempts, no trials of that kind—I must fly. This very night I will leave the house and join you at the end of the avenue of palm trees. Do not approach near for fear of the dogs and negroes who watch and guard it, but be there. If you do not find me there before two o'clock this night, return to Guoyama, and come back the next.

George, in going out, met on the threshold of the door the negro, whose white eyes glared fixedly upon him. He was a kind of giant, with flat nose, thick lips, thick matted hair, broad shoulders, and his muscles seemed to have at once the rigidity of iron and the elasticity of a withe. He remained immovable till the stranger was out of sight, and then he bounded off like a deer and ran to his master. In a few minutes the Marquis del Ritto was informed of the visit that had been paid to his house. The negro in his passion for Anitta, always concealed his burning jealousy under the shelter of an ardent zeal for his master's interests. He had thus won the entire confidence of a man whom he would have been glad to crush like a worm, had he not been afraid of the axe or the gibbet.

When the Marquis entered he thought he observed upon Anitta's face, an expression more calm and pleasing than common; he inquired in a lively tone what motives had brought the stranger to the house.

Anitta did not know, but the hospitality of the Marquis was sufficiently well known in the country, and she thought nothing more was necessary to explain the incident. They taked no further of the stranger.

The Marquis was fatigued; he asked Anitta for his iced punch, a beverage of which he was very fond, and of which she was skilled in the making. Presently Anitta offered him a bowl which she bore upon a server. The Marquis, whose blood was inflamed under the double influence of the heat of the day and the heat of his passion, saw her at this moment more beautiful than ever. He took the bowl of punch, and having placed it upon the table, seized hold of Anitta and locked her in his arms.

See, said he, here is the key of my strong-box, all shall be yours.

But he had hardly finished these words before Anitta had slipped from his hands with an uncontrollable feeling of disgust.

He was mad with rage. Know you, Anitta, that I can punish you for this? A word, a single word, and you are shamefully scourged.

Yes, I know it, and what then, said Anitta, calmly.

What then? I shall be avenged.

But I shall be still more avenged in bearing the chastisement and resisting you always.

The chastisement will be the end of you.

I shall not suffer it twice.

And what will you do?

Take my own life.

The Marquis knew enough of her character to believe that her resolution would not shrink from such an extreme act. He hoped, on the other hand, that time would do for him, what prayers and threats had failed to accomplish; but it is readily seen that the pride of the old Spanish noble, the pride of the planter was deeply wounded by the obstinate resistance of this slave.

It was deep night. A violent wind blew vast masses of clouds tumultuously across the sky. The lights in the huts, and the fires lighted upon the side hills were extinct, and not a sound was heard but the music of the wind nestling through the foliage of the palms.

At this hour a lattice of the house was opened, but so softly that a mouse would not have been awakened, and a woman appeared at the window, turning her restless eyes at first up to the sky and then upon the earth.

"O Holy Virgin," murmured she, "protect me!" And by means of a cord which she had fastened strongly to the window, she glided down to the ground. While all this was passing, two flaming eyes were looking on without being seen from beneath the shadow of a tree. Anitta started to run, and her feet, like those of the flying chamois, hardly left their prints upon the earth.

At the end of the avenue a man enveloped in a hunting cloak, was waiting. Anitta, I am here.

Come this way, and let us hasten, said Anitta.—Within three hours we shall be in Massippa.

Like a jaguar springing upon his prey, a man bounded towards them; he laid his large heavy hand upon Anitta, and at the same time called for aid. It was the negro. The cunning of the monkey and the jealousy of the tiger had made him suspect some plot, and this night he had kept better watch than was his custom.

In an instant other negroes came up, and the fugitives were secured. An unequal struggle ensued between George and his assailants, and just at the critical moment he drew a pistol, with which he was armed, and shot the most powerful of his adversaries. He was shot through the fleshy part of his arm. Blood flowed, but the wound was slight.

Nothing could exceed the astonishment of the Marquis, when the news of this strange event was told him. He could hardly believe the story. It cannot be, it is impossible, repeated he. As his doubts vanished, his brow contracted and his nostrils distended like those of a hyena. At the very moment that he came into the presence of Anitta and her lover, he would have sentenced the latter to death if he had thought this would be the most terrible punishment to her.

Horrible night!

I understand you now, miserable woman, your love is that of the harlot. You spurn the old man—the old man who has given you protection and shelter, who would have made you rich, and you repel him in order to cast yourself into the arms of the first comer.

Sir, said George.

Silence, not a word from you, interrupted the Marquis, upon whom the voice of George produced an effect like that of a spark of fire upon powder.

Your pardon, sir, cried Anitta, you are mistaken; this man is not a stranger to me; he is my lover, the husband whom God has given me in this world.

'Tis false.

No, it is not. The truth of what I say is well known at Porto Rico, where we lived a long time. At Porto Rico, where I was free, for I was free before I became your property, I caused myself to be sold,—sold of my own free will. Hear me, that man was dying; the climate of the country was killing him; he had not the money to take him to Europe, and I sold myself, that he might have that money. Since then, judge what I have suffered in being far from him. Oh! is it not enough to win your compassion.

Anitta then, in an earnest and rapid recital told the tale of their love.

The Marquis listened coldly and without the least emotion; the sketch which she traced of her love for another, eradicated the little pity he had begun to feel. He had lavished his love and his attentions so profusely upon this woman, and yet he had been spurned!

When she had concluded, he exclaimed: So then, I have been your dupe! I have knelt at your feet and sought to win your love, as I would have done at the feet of a queen, had I loved her as I have loved you! And I have been spurned from the feet of a slave; I, the Marquis del Ritto, a noble of Spain, and the owner of a thousand like thee. Have you rightly estimated the magnitude of the blemish which your finger, the finger of a slave, has stamped upon my forehead? And yet you, miserable creature, owe me more than these other women here present, who are ready to give me their bodies and their souls; others have sold them, doubtless against their will; but, you, you belong peculiarly to me, because you sold yourself. Your body is my money, and at my absolute disposal.

Wretch! cried George.

Not a word, cried the Marquis. Another word, and my slaves shall strangle you.

Be silent, George, in the name of Heaven, be silent.

I be silent! Am I too, also a slave of this man? Are the laws here dumb! Can I not have justice?

Yes, justice must be done; done to me, to you sir, to this woman, and to you also, my negro, my good sentinel! Yes, we will think of justice over night, for there is need of time for reflection.

He immediately issued his orders to his overseer, to the guards of his dwelling, that they should keep watch upon the stranger and Anitta. He then dismissed them all, and withdrew to his chamber.

The next day all were anxiously waiting to see what sort of justice the Marquis would administer.

Early in the morning he had sent for his favorite negro, and they were a long time closeted together.

Tell me, slave, what think you of Anitta? Beautiful, is she not?

She is, master.

Much more than the women of your class, is she not?

Anitta is the child of God, replied the negro in his patois, but the others are the children of the devil.

Should you like her for a wife?

The negro looked astonished.

Answer, for your wife?

Master, she is so beautiful!

She is thine. I give her to you; you shall marry her to-day.

The negro laughed, and his eyes glistened with delight.

This news spread rapidly.

You shall have no cause to complain of the justice you invoked, said the Marquis to George, with a demoniac smile. You may go, you are free. The tribunals of Havana might prove, I believe, quite unfavorable to an assassin and a thief, and you are both the one and the other.

What will you accept as the price of Anitta? asked George, who disdained to answer the Marquis.

Anitta! If you had twice the wealth that I possess you should not have her; could you offer me the vice royalty of the island, you should not have her. She must have justice done her. Yes, she has spurned the noble Marquis, her master, Signior of Guoyama, and she, Anitta, shall become the wife of a slave like herself. That is justice,—God's justice. "Whoso kills with the sword, shall perish by the sword." She has disdained and despised me, and she shall be disdained and despised.

I praise your clemency, Marquis; is your vengeance so easily appeased? Will you not give my body to your dogs, or to the alligators of your river? It would be a diversion worthy of you, Marquis of Ritto.

You rail, I think. Hence! begone! said the Marquis, and keep yourself far from this plantation.

Beware! Marquis of Ritto, said George, in a determined tone.

Go, dear heart, said Anitta, far from this place, where you ought never to have come in search of me. Go and be resigned as I am. But count always upon Anitta, thine forever!

The Marquis motioned to his negroes to remove George. He was weary of words.

The vengeance which he had premeditated took its course.

During the day, they went through the formalities of a marriage. A hut was selected for the future home of the new married couple, and in the evening, Anitta, pale, but with a firm step, was conducted to it by a crowd of slaves, who guarded her. They made her enter, and in obedience to the orders of their master, shut her in. Shortly after, the negro, whose property she had become, arrived at the head of his comrades. They prepared to celebrate this marriage by their dances and by copious libations of *tafia*, which had been plentifully supplied to them by their master. He designed that this marriage should be for the whole plantation an occasion of drunken and delirious joy.

The negro was intoxicated. His brutal passion was still further stimulated by the artificial excitement of alcohol. He was a kind of ourang-outang.

Go, said the Marquis, who had come to see how the fete went on, go in; and at the same time shut the negro into the hut. You are master here, and your wife is waiting for you.

The negro entered. The door was closed. Immediately an infernal dance, a dance of the negroes great and small, half naked, was begun at the sound of the voice, of tambourins, bass drums, and the clapping of hands. The uproar was prolonged into the night, and until sleep, fatigue aud drunkenness had conquered voice and limb. The noises gradually died away, and silence, the silence of death succeeded.

The next day, at ten o'clock, the doors of the hut were still closed. Neither the radiant husband of Anitta, nor Anitta herself were yet to be seen.

The Marquis, impatient at his negro's delay, ordered the doors of the hut to be opened. They were opened. Several persons advanced into the interior of the hut, to see and summon the inmates. They found at their feet two corpses.

The negro had a large wound over his breast. A dagger, directed by a sure hand, had pierced through the flesh, and was still sticking in the wound like an arrow. Anitta had been strangled, and bore on her neck the marks of the iron fingers that had grasped it. Evidently there had been a struggle between them. A struggle made equal by the drunkenness of the one, and the courage of the other.

Ah! said the planter, looking with cold indifference upon the two dead bodies, "this might have happened to me." He crossed himself twice and withdrew.

Chance had directed me to Guoyama, at the time these events took place. They spoke to me of George, like myself, a Frenchman and a painter.—This indentity of country and occupation excited in me a still higher interest. I went to see him. I found him resigned. He related to me the history of his life; the sad and melancholy story of his life. There was such a charm to him in these recollections that I furnished him occasion to him to repeat them to me several times.

It was his intention to live at Guoyama, forever renouncing his native country. The certainty that the climate was mortal to him fixed his determination. And, moreover, said he to me, I always cherish the hope that at no distant day my reason will fail, and then the justice of God will be visited by my hands upon that infamous planter.

Come, come, said I, go back to France.

No, answered he with frightful calmness. I must kill him some day. You know that it cannot be otherwise. When? I know not. God will decide.

[For the Northern Light.]

STANZAS.

"The heart knoweth its own bitterness."

BY MRS. C. A. JEWETT.

Tell not thy secret grief,
It may be that thy brother's heart can feel
Sorrow for suffering that thy words reveal,
And give thy heart relief;
But soon his ear will weary of a tale
Too oft repeated—then of no avail
The lengthened story of thy secret ill.
Bear on in silence—suffer and be still.

Yes, we must bear alone.
Hard lesson this for the young heart to learn,
Seeking for sympathy in every turn,
In every friendly tone.
But when the task is learned, although with tears,
The heart gives up the hopes of early years,
Though anguish may its very life-chords wring,
Still gains its strength by its own suffering.

It is the common lot—
None knows the hidden soul, save Him whose eye
Looks through each dark recess—forever nigh
Though we behold Him not.
And it was by his own, his holy will!
That wants too deep for human love to fill,
Should to our thirsting spirit here be given,
That we the living stream might seek in Heaven.

New-York, Feb. 1842.

EDINBURGH REVIEW.

BY T. R. BECK.

[Continued from No. 8, page 127.]

SIR WALTER SCOTT,

(On the authority of his Biographer.)

Vol. 3. Southey's Amadis of Gaul.
Sibbald's Chronicle of Scottish Poetry.
Godwin's Life of Chaucer.
Vol. 4. Ellis' Specimens of Ancient English Poetry.
Life and Works of Chatterton.
Vol. 5. Johnes' Translation of Froissart.
Col. Thornton's Sporting Tour.
Vol. 6. Godwin's Fleetwood.
Cookery Books.
Poems of Ossian.
Vol. 7. Todd's Edition of Spencer.
English Metrical Romances.
Vol. 9. Hon. W. Herbert's Poems.
Miseries of Human Life.

"To this last Mr. Jeffrey added some, if not all of the *Reviewer's Groans* with which it concludes."

Vol. 30. Maturin's Women, or Pour et Contre.

Of this article, Scott remarks, (Lockhart, vol. 2, p. 112, octavo edition.) "An article for the Edinburgh Review—this for the love of Jeffrey, the editor—the first for ten years."

SIR WILLIAM HAMILTON.

Professor of Logic in the University of Edinburgh.

(The following list was published by Sir William himself, when a candidate for the above chair. It is given in a French translation of a portion of his works, by M. Piesse, Paris: 1840. This last work forms a part of the valuable scientific library of Mr. John Patterson of this city. Fourteen articles are acknowledged.)

Vol. 50. Cousin's Course of Philosophy.
Vol. 52. Philosophy of Perception. Reid & Brown.
Vol. 53. Epistolæ Obscurorum Virorum.
Universities of England. Oxford.
Vol. 54. English Universities. Oxford.
Vol. 55. Dr. Thomson's Life and Writings of Dr. Cullen.
Vol. 56. Tenneman's History of Philosophy.
Vol. 57. Recent Publications on Logical Science.
Vol. 58. National Education in England and France.
Vol. 59. Patronage of Universities.
Vol. 60. Admission of Dissenters to the Universities.
The Universities and the Dissenters.
Vol. 61. Dalgarno's Works.
Vol. 62. Study of Mathematics. Whewell.

To these, the translator says, he does not hesitate to add, as from the same source,

Vol. 68. Metaphysical Tracts of the 18th Century.

PETER M. ROGET, M. D.

Secretary of the Royal Society, London, and author of a Bridgewater Treatise.

Vol. 22. Huber's Recherches sur les Moeurs des Fourmis.

Vol. 25. Huber's Nouvelles Observations sur les Abeilles.

On the authority of Pettigrew's Medical Portrait Gallery.

REV. THOMAS McCRIE, DD.

Biographer of John Knox and Andrew Melville.

Vol. 51. Memoirs of Sir James Turner.

Encyclopedia Britannica, article *McCrie*.

ANDREW DUNCAN, JUN., M. D.

Professor of Materia Medica in the University of Edinburgh.

Vol. 3. Pharmacopœia Colleg. Regal. Edinburgen,

So stated by Dr. Duncan in his "Supplement to the Edinburgh New Dispensatory," 1829.

HENRY BROUGHAM.

(Now Lord Brougham and Vaux.)

The contributions of this individual must have been quite numerous, but as this list is prepared on the principle of only mentioning such articles as are acknowledged on some competent authority, I will merely name those which have recently been collected and published at Philadelphia, in two volumes.

Vol. 3. Black's Lectures on Chemistry.

Vol. 11. John Randolph's Speech on Neutral Rights.

Vol. 29. Junius Identified.

Vol. 46. George the Third and his Coronation Oath.

Vol. 48. London University and King's college.

Vol. 52. Late Revolution in France.
Polignac Ministry.

Vol. 67. Diary of the times of George the Fourth.
Correspondence of the Earl of Chatham.
Congress of Verona. Talleyrand.

Vol. 68. Remarks on Sir Herbert Taylor's Publication.

Vol. 69. Biographical Treasury.

The following on various authorities, have been attributed to Lord Brougham.

Vol. 1. Politique de tous les Cabinets de L'Europe.

In his work on Colonial Policy, Mr. Brougham says, "the substance of the general reasonings and views detailed in this section, was published in the second number of a periodical work, conducted by a society of gentlemen in Edinburgh, entitled the *Edinburgh Review*."

Vol. 1. Dr. Thomas Young's Bakerian Lecture on the Theory of Light and Colors.

"Dr. Young's theory of light was treated with the most sovereign contempt by Lord Brougham in the earlier numbers of the Edinburgh Review, and Dr. Young died without reaping the honor of it. This theory is now recognized as true, and Arago has formally vindicated Dr. Young from the noble critic's animadversions, in a discourse delivered at the Institute."—Quarterly Review, Vol. 58, p. 166. American Edition.

Vol. 6. Bailly's Memoirs. Blackwood's Magazine, No. 191.

Vol. 13. Don Pedro Cevallos on the affairs of Spain.

This celebrated article is ascribed to Mr. Brougham, by Lockhart in his life of Sir Walter Scott, Vol. 1, p. 325.

Vol. 32. Necessity of parliamentary Inquiry. Blackwood, May, 1820.

Vol. 33. Recent Alarms. do.

Vol. 46. Edmund Burke. Edinburgh Review, Vol. 68, p. 109. American Edition.

Vol. 60. Last Session of Parliament. Tait's Magazine, November, 1834.

Vol. 69. False Taste. Dr. Channing.

Mr. George Combe in his Tour through the United States, (Vol. 2, p. 121,) says that this article is ascribed to Lord Brougham.

The celebrated Review in

Vol. 10. Lord Byron's Hours of Idleness, was generally attributed to Lord Brougham. It is so asserted in the North American Review, Vol. 1, p. 344.

The Quarterly Review says, (Vol. 58, page 166,) "Lord Byron, by the bye, believed to his dying day that Lord Brougham was the reviewer of the Hours of Idleness—witness some well known lines in one of the later cantos of Don Juan—but this we believe was quite a mistake."

THOMAS MOORE.

Vol. 33. Lord Thurlow's Poems. Quarterly Review, Vol. 67, p. 49, Am. Edit.

Vol. 24. Boyd's Translations from the Fathers.

"I have redde thee, (says Lord Byron in a letter to Moore,) dear M—— *on the Fathers*, and it is excellent well. Positively you must not leave off *reviewing*. You shine in it—you kill in it; and this article has been taken for Sidney Smith's, as I heard in town, which proves not only your proficiency in parsonology, but that you have all the airs of a veteran critic at your first onset. So prithee, go on and prosper."

THOMAS BROWN, M. D.

Professor of Moral Philosophy in the University of Edinburgh.

Vol. 1. Philosophy of Kaut.

"Some articles were written by Dr. Brown and bear the marks of his genius. His connection with the Review, however, was but of brief continuance. Some liberties that were taken with one of his papers, by the gentleman who had the superintendence of the publication of the third number, led to a misunderstanding which terminated in withdrawing his assistance from the work." Life of Brown, by Rev. D. Welch.

Mr. Cross in his selections from the Edinburgh Review, Vol. 3, p. 162, also ascribes to him,

Vol. 2. Villers on a New Theory of the Brain.

PROFESSOR WILSON.

Editor of Blackwood's Magazine.

Vol. 30. Childe Harold's Pilgrimage. Canto IV. By Lord Byron.

"Professor Wilson is known to be author of this essay, the first, I believe, and the last of his contributions to the Edinburgh Review." Cross' Selections from the Edinburgh Review, Vol. 1, p. 289.

UGO FOSCOLO.

Vol. 29. Dante. Vol. 30. Dante.

Vol. 46. Democratical Constitution of Venice.

The two first on the authority of the Annual Obituary for 1828, and the last on that of the Foreign Quarterly Review, Vol. 9, p. 213.

RICHARD PAYNE KNIGHT.

Vol. 14. Oxford Edition of Strabo.

Vol. 16. Reply to Calumnies of the Edinburgh Review, from page 169 to 177.*

Vol. 16. Works and Life of Barry.

See Penny Cyclopedia. *Art.* Knight.

(To be continued.)

[For the Northern Light.]

SENSIBILITY OF GENIUS.

BY CHAS. H. LYON.

A capacity for profound emotion is pre-eminently an attribute of genius. Minds the most remarkable for activity and energy are usually the most susceptible. They receive the deepest impressions from external influences, and are capable of the highest degrees of sensation and feeling.

A contrary opinion is not unfrequently entertained, and is not, perhaps, without some appearance of reason. The phenomena attending intellectual greatness, are not always understood, and we are extremely liable, in contemplating them, to arrive at false conclusions. Our minds are apt to associate mental power with the stern and phlegmatic temper of the stoic. The strongly developed intellect, and the highest powers of thought seem to be allied to a nature different from our own—a nature incapable of lively sensibility or tender emotion.

It arises perhaps from a certain sense of inferiority to such minds, that we are wont to iamgine them at a greater distance from us than they really are. We fancy them isolated from the world, moving in a sphere of their own, and exempt alike from the frailties and infirmities, the hopes and fears, the sensations and emotions common to humanity.

And this sentiment is still further strengthened by the admirable discipline and self-control which are usually the attendants of true greatness. Those who are gifted with the highest endowments are, in general, the least ostentatious in exercising them. Their capabilities, both of action and feeling are exerted with intense energy, but without external manifestation. The soul of genius is often deeply and powerfully moved when no outward signs give evidence of emotion.

The opinion is, therefore, equally erroneous and unjust, which ascribes to mere stoicism or apathy, or to a want of sensibility, the apparent equanimity, and the exterior serenity which conceal from the world the deep-seated sensations of great minds.

Tarrytown, Feb. 28, 1842.

[For the Northern Light.]

SONNET.

BY MRS. JAMES HALL.

Far in the silence of the deep green wood,
Far on the water's restless world away,
How rife has Nature filled her solitude,
With solemn music, in her dim decay,—
With songs of love and merry roundelay
In her fresh springing verdure. Beautiful,
Albeit unseen the long, long summer day
Lights up the forest vistas, and the dull,
The unrevealing gloom of evening's ray
Blends all the tints and shadows; while old Night
Spreads out his canopy of stars, each bright
With the effulgence of a world of light.
How full of Being! Holiest, that untrod,
The wilds of Nature's beauty only breathe of God!

* Professor Playfair and Rev. Sidney Smith wrote the remaining parts.

[For the Northern Light.]

OBSERVATIONS ON THE RESOURCES OF THE WESTERN STATES.

BY JAMES HALL,

Geologist in the New-York State Survey.

To the people of a state holding the position of New-York, any knowledge of the country intervening it and the Mississippi river, must be of direct interest. Under all circumstances, the trade with the Atlantic will be carried on for the most part through this state, by means of our canal and rail-roads. For heavy articles of produce from a large portion of this great extent of country, the Erie canal will always take the preference of all other modes of conveyance, or other routes. The other principal direction of the western trade with the Atlantic, is by the Mississippi to New Orleans; but this point is too far south to make it ever a rival of the eastern market for the great staples of the country. In the north, Quebec offers another point of outlet for the productions of the interior, and when the enlargement of the Welland canal is completed, this route will present many facilities; but the Gulf of St. Lawrence can never in inclement seasons, have the advantages of the harbor of New-York. The communications already made, and in contemplation, from those states to the great lakes, and particularly to Lake Erie, afford sufficient proof of the direction of trade of that part of the country.

The following incidental sketches were made during a tour, in which the whole time of observation was devoted to another object, viz: that of tracing the geological structure of the country between New-York and the Mississippi river.

The underlying rocks of a country give rise in a great measure to the soils occupying the surface. Now the principal geological features of that part of New-York west of Little Falls and the primary which ranges northward, are continued through a great portion of the four States and one Territory, between us and the Mississippi, and north of the Ohio. We therefore readily understand why their soil and productions correspond with those of New-York. The greater portion of this territory is essentially agricultural; even the coal bearing districts are also grain growing districts; and there is no better corn producing land than the valleys in the coal strata and adjacent rocks. This character doubtless arises from the proximity of limestone, which in broken and comminuted particles, are more or less intermingled with the drift or alluvium, which every where covers the country.

A remarkable geological feature, is the immense extent and great thickness of the limestone formations; and another equally striking feature is the vast extent of coal bearing rocks. Perhaps there is not in the known world beside, a coal basin equal to that of Illinois, occupying as it does more than half that state and a considerable portion of Indiana. Wherever there exists, as here, abundance of coal and iron, a temperate climate, a fruitful soil, and a natural communication with the Atlantic, there are the sinews of strength, the means of wealth and prosperity. Indeed it is scarcely possible to calculate either the wealth or population of the great Mississippi valley for an hundred years to come.

In Ohio, we have the southern and eastern portion of the state underlaid by coal and beds of iron ore, in inexhaustible quantities; two of the greatest mineral resources a country can possess. Ohio, at the present time containing a population of 1,500,000 souls, is doubtless capable of supporting ten times that number, or 15,000,000. Probably not more than one-sixth of the land is now under cultivation; and yet Ohio is the first wheat growing state in the Union; the crop of 1840 being more than 16,000,000 bushels. When we compare this with the proportion of land cultivated, and the large proportion of the latter devoted to corn growing, we may form some estimate of the importance of the exporting trade of that state.

Although inland, Ohio possesses greater advantages if possible, than any adjoining state:—upon one side a navigable river, communicating with the Atlantic in one direction, while on the opposite side it is bordered by Lake Erie, affording direct communication with the greatest market on the Atlantic coast. Add to this the means by canal, &c. of penetrating from the lake to the interior, and entirely across the state to the river, and we shall perceive some of the advantages of trade possessed by an inland state.

The iron manufacture of Ohio is not its least resource; and the means of increasing this source of income, are almost illimitable.

Thus while the fertility of the soil renders Ohio eminently an agricultural state, the existence of coal

and iron renders her also a manufaturing one, at least over a considerable portion of surface.

The proportion of waste land is extremely small. There are few extensive marshes or lakes; and very little incapable of cultivation, even in the coal region, or the country occupied by the conglomerate below the coal. The growth of forest trees gives evidence of this; for even the highest hills of the south eastern part of the state are mostly covered with dense forests. It may be inferred also from the fact, that thus far charcoal has been used exclusively, or nearly so, in the iron manufacture, while coal of good quality could be obtained upon the same ground. On the Connecticut reservation I have seen some of the finest fields of wheat growing on land underlaid by coal.

Nearly the same views apply to Indiana and Illinois; and when these states shall become more densely populated, and the works of internal improvement completed, the surplus products, particularly of the northern portions of the states, will, in a great measure, find their way to the eastern market by the lakes. Illinois will always find a ready outlet by the Mississippi, for the surplus productions of its western border; while from the interior, the Illinois river will be the means of communication, and the southern extremity, as well as of Indiana, will always find the most convenient route by the Ohio. The productions of Michigan will of course find a natural outlet by the lakes and the Erie canal.

I have alluded only to coal and iron ore among the minerals of the western states: but the lead ore of the northern part of Illinois and Wisconsin Territory, is at present a greater source of revenue than the coal and iron of the whole west. Copper ore appears to be abundant in many places, and will no doubt be successfully wrought, so soon as the smelting process is understood by those engaged in mining operations in that region. The great metalliferous limestone of the west is an important feature; presenting itself in a uniform horizontal or slightly inclined position, with no disturbances, leaving the surface of the country, smooth and arable as well as eminently productive; while beneath the surface lie buried such inexhaustible sources of wealth. The limestone bearing the lead is the same as that at Lockport and Niagara Falls in this state; it goes on increasing in thickness as we go westward. It may occur to some of my readers that they have seen galena, the common ore of lead, as well as zinc blende and sometimes a little carbonate of copper in this rock at different places in New-York. The whole mass becomes expanded at the west, and the metalliferous veins vastly increased.*

From Mr. D. D. Owen's report to Congress, it appears that the annual amount of lead produced from the mines of that region, is about 31,000,000 pounds, as much as is produced in all Europe, except Great Britain. The lead ore is very pure in most localities, and free from gangue or intermixtures of other ores: blende and pyrites sometimes occur, but not often. The copper ore has not been smelted successfully in the district; but there have been raised in the vicinity of Mineral Point upwards of 1,500,000 pounds. In 1838, there were sent to England to be smelted 50,000 pounds of copper ore, which yielded 20 per cent of pure copper. The average yield of the Cornwall ores is less than half this per centage.

Calamine or carbonate of zinc, is abundant, occurring in fissures with the lead ore. Thousands of tons are lying at the mouths of the mines, thrown aside as useless. Blende is abundant. There is doubtless more than sufficient quantity of the ores of zinc to supply all that is used in the country. Iron ore, in the form of hematite, pipe ore, &c. is abundant.

The coal district of Illinois approaches the lead region, and eventually coal will be used for smelting the ore; a scarcity of wood already beginning to be felt in some places. By two or three lines of railroad from one district to the other, the products of the coal region would be made available where much needed, or the lead transported there to be smelted, would then be in the vicinity of the Illinois river, and nearer to water communication than at present.

Mining is now pursued with little regard to system; and consequently there ensues much waste and loss. The miner is rarely the smelter of the ore, but sells to the smelter, who again often sells to the shipper. In this way the profits are divided, whereas if the miner were the smelter and shipper, or if the smelter shipped the metal, a much greater profit could be made. Scarcely any thing at the present time offers better inducement for the investment of capital, than the purchase and smelting of lead ore to ship to the eastern market.

Nearly all the lead is taken down the Mississippi, but from the more eastern mines it will eventually be directed by way of the lakes to the Atlantic.*

The limits of the lead district have not been accurately defined, and I observed that openings had been made far to the east of any place where lead has yet been found. The manner of searching for the ore is, to select a place where appearances are favorable, and commence digging; if no loose ore, nor a fissure in the rock is discovered, the place is abandoned, and examinations commenced at another. This is called "prospecting," and the openings are known as "prospect holes." The mines which are worked are called "diggings."

I found a general belief that the lead plant (Amorpha canescens) is found growing only where lead occurs, and this is often considered an indication of the ore: I observed however, that this plant continued abundant much farther east than lead is found, and where an entirely different limestone underlies the surface. The same plant I found also on the Mississippi, far below the lead district.

Should the production of copper ore be as abundant as heretofore, and as now indicated near Mineral Point and other places, it offers great inducements to the smelter. Such has been the facility for obtaining it, that I was informed the ore had been offered at the same price as lead ore.

By a law of Congress, a survey of the mineral lands of this region has been made with a view of graduating the price; but since the report, there has been no action upon the subject. At the same time, the present system of mining is such that the more accessible will be removed, while that less easily obtained, is left for those who come afterwards. It cannot be denied that this is neither profitable to the United States, nor conducive to the permanent welfare of the mining interests. So long as the miner possesses no title to the land, having no individual interest in the soil, ore will be sought where most readily obtained, and where one place is not exceedingly productive, it will be abandoned to search for another; for the simple and cheap machinery for raising the ore is easily procured, and there is no hindrance in starting a new "digging," and scarcely a loss when an old one is abandoned.

A system somewhat analogous has prevailed in the iron manufacturing districts of Ohio. In this way the material is produced for some years at a less cost than by regular mining; but it always tends to embarrass future operations, and sometimes renders unprofitable that which by judicious management would have yielded a constant income.

Some estimate of the western trade upon the Ohio and Mississippi rivers, may be formed from the number of steamboats employed, and which are constantly increasing. From what I have been able to learn there are not far from 400 steamboats, principally on these two rivers. I have no sufficient data for ascertaining the amount of goods and produce transported by these boats; but during the season of navigation it must be many thousand tons weekly. This is also exclusive of the trade carried on down the rivers by flat boats; large numbers of which are loaded at different places along the Ohio and its tributaries, with products for the southern market.

It is to be remembered also, that this amount of trade is carried on in a country where civilized man has had possession but a few years; where a very small proportion of the land is under cultivation, and occupied by a population which will increase eventually to ten or twenty times its present number. And we are further to take into account the Missouri and its tributaries, with other rivers still but little navigated, whose banks will yet be thronged with a dense population.

Nothing can give one a more grand idea of the magnificence and extent of our noble country, than sailing day after day upon these great rivers, bounded on either side by the most luxuriant vegetation. Indeed it seems scarcely possible for any country or place to exceed in beauty and fertility the quiet, untouched luxuriance of the Ohio valley in the month of May.

With the great western rivers covered with steamboats, it will be enquired where is the fuel to be obtained? But in this as in every thing else, the interior of our country exhibits her productions on the grandest scale. The primeval forests have thus far furnished nearly all the fuel required; and while the land has been cleared, the owner has in some measure been repaid for his present labor in the sale of "steamboat wood," along the river banks. But the time is fast approaching when wood will become scarce and the price high, and already the people are turning their attention towards the immense quantity of coal, which lies stored up in this portion of the country. These deposits are commensurate with the want; the south-eastern part of Ohio contains some of the richest and most extensive beds, and in proximity to the river, even upon its very brink.

The western and southern portions of Indiana are extensively underlaid by the coal bearing rocks; also, a part of Kentucky bordering the Ohio river; and Illinois presents more than half her territory occupied by the same. Again after crossing the Missippi, we find in Missouri, other extensive formations of this system. The places just enumerated, contain more coal than all Europe and the other United States besides.

It is plain to be seen that a country possessing such combined advantages, will become great and important; and the field at which we have just glanced is but a small portion of the vast west. From the Mississippi to the Rocky Mountains extends this beautiful and fertile country, gradually ascending and giving rise to streams, which water and refresh the surface, as they flow onward to the mighty "father of waters."

The Territory of Iowa offers great inducements to the emigrant. Extending for a great distance north and south, it affords a great variety of climates, from the mild and almost southern, to extreme cold. Bordered on one side by the Mississippi, it has always a ready means of communication with the Atlantic cities. The country is unusually healthy, rising for the most part considerably above the river, and watered by beautifully clear and rapid streams. A large portion of the Territory bordering the Mississippi, is underlaid by limestone, which extends many miles into the interior, and it is from this limestone that springs take rise, producing the streams and rivers. A few years hence will see this Territory one of the most enterprising and flourishing states of the west.

[For the Northern Light.]

CIVIL ENGINEERING.

[Continued from the January number.]

BY WILLIAM H. GRANT.

With regard to the last mentioned achievements of ancient art, there is less room for conjecture, and less uncertainty as to their purposes, adaptation, and the degree of skill with which they were executed, than exists in relation to those we have briefly noticed.—History is more explicit and satisfactory, as well as the works themselves, which have come down to us through the lapse of ages, bearing the most enduring and indisputable evidences of their real character. Some portions of them are even as perfect as if fresh from the hand of the workman, others are less entire, all have undergone the corroding influences of time, and the still more ruinous depredations of barbarians. But they continue to preserve in whatever state, their distinctive traits, and impress the astonished traveller with the most vivid ideas of their former magnificence.

Before we proceed to consider them in the bearing which they have upon this science, it may be well to remark, that works of this class are usually regarded as belonging more appropriately to architecture. They are treated of, together with nearly all that pertains to the higher constructive arts, in ancient history, under this very comprehensive term, and may be claimed, with some plausibility, as coming within its exclusive province. But they nevertheless possess properties and features common to both sciences. In those imperishable monuments of antiquity, we find the two intimately connected, as they not unfrequently, perhaps necesssarily, are, in many others which partake at once of the beautiful and the grand.

The one may be said to give the ornaments and the decorations; the other, dignity, stability and endurance.

Without attempting, however, to define the particular duties and functions of either science, it will be sufficient to observe, that the term architecture is much more restricted in its modern sense than in its former signification, the many various and intricate combinations of science and art which it embraced, having been assigned to separate, and more fitting departments. Avoiding, therefore, as much as possible, extraneous and conflicting matter, we shall endeavor to direct attention to those points most pertinent to the subject. In doing this it may be necessary to extend our remarks and references in the present chapter somewhat beyond the limits which seem to be required.

The pyramids have been so often described that an allusion to them would not be made here, were it not that they possess some characteristics too important to be overlooked.

* A more full account of this may be found in the American Journal of Science, vol. XLII. page 81.

* A gentleman who is familiar with the subject, recently informed me that lead shipped from Milwaukie can be delivered at Sacketts Harbor, at five dollars per ton freight. A reduction of tolls upon lead passing the Erie canal, would afford strong inducements to ship in this direction, and I believe the subject is about to be presented to the proper authorities.

Those of Ghizeh are the most remarkable, not only for their superior dimensions, but for the vestiges which are found in their vicinity throwing light upon their mode of construction. The one erected during the reigh of CHEOPS is the largest of the number. Its dimensions are variously stated, owing to the different periods at which they were taken, and the obstructions of rubbish and drifting sands which enclose its base.

They are, according to:

	Height.	*Width of side.*
Herodotus,	800 feet.	800 feet.
Strabo,	625 "	600 "
Diodorus,	600 " some inch.	700 "
Pliny,	—	708 "
Le Brun,	616 "	704 "
Pros. Alpinus,	625 "	750 "
Thevenot,	520 "	612 "
Niebuhr,	440 "	710 "
Greaves,	444 "	648 "

Savary, from whose writings this table is taken, shows that Niebuhr and Greaves are in error in regard to the height, which he makes not *less* than 517 feet, and from the proportion which holds between the other measurements, it may be inferred that the length of side does not greatly differ from the height.*

Herodotus says that the materials of which it is formed, were excavated from the Arabian mountains, and conveyed to the Nile, from thence transported in vessels to a point not far distant from their place of destination. In this service 100,000 men were employed, who were relieved every three months. Connected with this part of their labors, was a *causeway*, constructed to facilitate the land carriage. It is spoken of as a work not inferior to the pyramid itself, having required the space of ten years for its completion. It was five stadia (3,125 feet) in length, forty cubits (60 feet) wide, and its extreme height thirty-two cubits; the whole of polished marble, adorned with the figures of various animals. The remains of this remarkable causeway, are described by Pococke, as they existed at the time he wrote,—as being about 1,000 yards in length and 20 feet wide, composed of hewn stone, strengthened on each side by semi-circular buttresses fourteen feet in diameter, and thirty feet apart, corroborating to some extent the statement of Herodotus.—It also embraced two *bridges*, one of which consisted of about twelve arches; the span is not given. The piers were ten feet in thickness, and it was of the same width as the road-way. The country over which the causeway was carried was low and exposed to inundations, which seems to have been the reason for giving it so great an elevation.

The preparation of the bed upon upon which the pyramid rests and the various subterranean chambers beneath it again required a vast amount of labor. It is of solid rock, and the excavations were extended, according to the account given by the Egyptian priests, to Herodotus, to a depth corresponding to the height of the pyramid. They have not been explored to that extent, yet ample discovery has been made to indicate the elaborate workmanship bestowed upon this part of the structure, and the existence of other apartments, in number and magnitude unknown.

The interior of the pyramid itself is also wrought in the same intricate and mysterious manner; vaulted and sloping passages; spacious chambers and sudden and abrupt descents, tortuous windings, and labyrinthian communications, compose and fill up the strange mass.

They are interesting in their curious mechanical construction, and for the Cyclopean character of some portions of the masonry of which they are formed. They are described as presenting in some instances, a highly wrought and finished appearance, equalling the best efforts of Grecian art, and in others the ponderous and massive form so peculiarly Egyptian. The exterior surface of this pyramid was coated with a layer of immense quadrangular stones, which were nicely and ingeniously fitted, giving the whole a uniform outline, and from the steepness of the ascent rendering access to the summit difficult, if not impossible. This feature, however, does not apply to it at the present day. It has been stripped of its valuable covering, and the material made use of in more modern structures; it offers now its terraced sides, an easy ascent to the admiring traveller.

What we have said in regard to this, will, with few exceptions, hold good in relation to all the other pyramids. Sufficient space it is presumed has been occupied to show their connection with the higher branches of art, and little more need be added if they are attentively considered, to demonstrate their intimate dependence upon scientific principles. The accurate adjustment of their several sides to the four cardinal points, if any thing further were required, would be sufficient to establish their claim to a rank among the distinguished productions of science.

They afford an interesting study to the philosophical observer, and an instructive and profitable one to the engineer.

In the gigantic ruins of the Egyptian temples we find a greater degree of elegance and richness displayed, a profusion of ornaments and embellishments, mingled with the grave and majestic, but none the less do they offer those striking features which make them worthy of consideration. Though they are enveloped in architectural beauties and disguised under the thousand forms of an idolatrous and heathenish fancy, they cannot fail, when closely investigated, to disclose their more important characteristics.

We come first to those of Thebes, the most ancient city of Egypt. "The sun," says Diodorus, "had never seen so magnificent a city." "Its monuments," says Professor Heeren, "testify to us a time when it was the centre of the civilization of the human race; a civilization, it is true, which has not endured, but which, nevertheless forms one of the steps by which mankind has attained to higher perfection."

Its ruins, in the time of Strabo, were discernible over a space nearly 9½ miles in length. It contained four principal temples; that designated by modern travellers as the temple of Luxor, though not the largest, is remarkable on account of its better state of preservation. "The most colossal parts," says Charles Bucke, "consists of fourteen columns of nearly eleven feet in diameter, and of two statues of granite at the outer gate, buried up to the middle of the arms, and having in front of them, the two largest and best preserved obelisks known. They are rose colored, are still seventy feet above the ground, and to judge by the depth to which the figures seem to be covered, about thirty feet more may be reckoned to be concealed from the eye, making in all one hundred feet for their height.* Their preservation is perfect, and the hieroglyphics with which they are covered, being cut deep, show the bold hand of a master, and a beautiful finish. The gravers which could touch such hard materials must have been of an admirable temper, and the machines to drag such enormous blocks from the quarries, to transport them thither, and to set them upright, together with the time required for the labor, surpass all conception. The entrance is through a magnificent gateway facing the north two hundred feet in front, and fifty-seven feet high above the present level of the soil." The dimensions of the great hall are 170 feet by 329; the height of the central avenue of columns 66 feet, exclusive of their pedestals; the total number of columns that supported its roof 134. The entire length of this temple is about 800 feet.

"But great and magnificent as was the temple of Luxor," says our traveller Stephens, "it served but as a portal to the greater Carnac, standing nearly two miles from Luxor; the whole road to it was lined with sphinxes each of a single block of granite. At this end they are broken, and for the most part buried under the sand and heaps of rubbish. But approaching Carnac they stand entire, still and solemn as when the Egyptian passed between them to worship in the great temple of Ammon.

Four grand propylons terminate this avenue of sphinxes, and passing through the last, the scene which presents itself defies description.

Belzoni remarks, of the ruins of Thebes generally, that he felt as if he was in a city of giants; and no man can look upon the ruins of Carnac without feeling humbled by the greatness of a people who have passed away forever.

The field of ruins is about a mile in diameter; the temple itself 1,200 feet long and 420 broad. It has twelve principal entrances, each of which is approached through rows of sphinxes as across the plain of Luxor, and each is composed of propylons, gateways, and other buildings in themselves larger than most other temples; the sides of some of them are equal to the bases of most of the pyramids, and on each side of many are colossal statues, some sitting, others erect, from twenty to thirty feet in height.

In front of the body of the temple, is a large court with an immense colonnade on each side of thirty columns in length, and through the middle two rows of columns fifty feet in height; then an immense portico, the roof supported by one hundred and thirty-four columns, from twenty-six to thirty-four feet in circumference. Next were four beautiful obelisks, more than seventy feet high, three of which are still standing; and then the sanctuary, consisting of an apartment twenty feet square, the walls and ceiling of large blocks of highly polished granite, the ceiling studded with stars on a blue ground, and the walls covered with sculpture and hieroglyphics representing offerings to Osiris, illustrating the mysterious uses of this sacred chamber, and showing the degraded character of the Egyptian worship.

Beyond this is another colonnade, and again porticoes and walls to another propylon, at a distance of two thousand feet from the western extremity of the temple.

As Thebes was situated on either side of the Nile, it has suggested the idea that the two portions of the city were connected by a bridge, and some investigations and research has been made to establish the fact.

The investigations of Wilkinson proved that the Egyptians were acquainted with the principles of the arch; and the discovery of Pococke to which we have alluded, of the existence of bridges in the vicinity of the Pyramids would seem to confirm it; but the absence of any remains of such a structure at this place, as far as examination has been made, leaves the question open to conjecture. The breadth of the river would render at this day such an undertaking extremely difficult.

One other work may be mentioned belonging to this city, as it occurs in no other place of equal antiquity. A jetty constructed on the borders of the Nile, and extending into it some distance, for the purpose of affording a harbor to vessels. It is on the western side, and in an angle of the river, and is composed of massive and well cemented brick, fifty yards in length and seven in breadth.

The colossal statues and obelisks, and other materials made use of in the Theban temples, were obtained from quarries near the cataracts of the Nile, of red granite or *Syenite*, (from Syene, a local name in that region.)* Herodotus mentions an instance, of an enormous stone which was obtained from this quarry, which was transported to the mouth of the Nile, a distance of 200 leagues, to form the roof of a temple. It was 240 feet in circumference and six feet in thickness. It is also mentioned by Savary, as illustrating the mechanical power necessary in moving those immense bodies.

Balbec, though not belonging properly to ancient Egypt, partakes so strongly of the Egyptian character that it may be regarded in connection with this subject. Its antiquity is so great that its early history is lost in obscurity. The mystery that hangs over its origin, and the prodigious labor by which it has been constructed, have rendered it in the minds of the Orientals, the work of supernatural power.

The ruins are not of great extent; they consist principally of three temples, which stand not far from each other.

The architectural embellishments are of the most gorgeous description, but we shall notice only a few of the more distinguishing features, which we extract from the "Ruins of Ancient Cities."† La Martine, in speaking of one of these temples, says: "At length we arrived at the feet of the columns. Silence is the only language of man, when what he feels outstrips the ordinary measure of his impressions.

"We stood in mute contemplation of these six columns, and scanning with our eyes, their diameter, their elevation, and their admirable sculpture, of their architraves and cornices. Their diameter is six feet, and their height upward of seventy-two.—They are formed out of two or three blocks, which are so perfectly joined together that their junction lines are scarcely discernible."

"The temples and the tombs of Egypt," says Buckingham, "were here equalled in the enormity of the masses that composed them, and the chambers of the pyramids rivalled in the closeness of the masonry; while the monuments of Athens itself in the age of Pericles and Praxitiles, were at least equalled in the richness and beauty of the sculptural ornaments that adorned them."

The stones used at Balbec are the largest that have ever been moved by human power, of those that compose the sloping wall which surrounds the temple on the west and north, three occupy a space of 175¼ feet, viz. the 1st 58 feet 7 inches in length, the 2d 58 feet 11 inches, and the 3d exactly 58 feet, and each of them twelve feet in thickness.‡

"When it is considered," says La Martine "that some of these blocks of hewn granite, are raised one above another to the height of twenty or thirty feet from the ground; that they have been brought from

* This table is compiled in the French feet, which are to the English as 1 to 1·06.

* One of them has since been removed by the French, and is now standing in one of the squares of Paris. It was found to be something over eighty feet in height.

* Fisk's Classical Antiquities.

† Those who desire a more particular description of these works will find many interesting details in the valuable compilation of Chas. Bucke.

‡ Similarly described stones are stated by Maundrell to be equal in breadth to their length, the weight of a single stone, therefore, of these dimensions, would be about 3,700 tons.

distant quarries, and raised to such a height to form the pavement of the temple, the mind is overwhelmed by such an example of human power.

"The science of modern times cannot help us to to explain it, and we cannot be surprised, therefore, that it is referred to the supernatural."

Thus we have presented, imperfectly, and in a hasty manner, some of the most prominent objects of ancient art belonging more particularly to the Egyptian school. Much has been omitted, and examples might still be cited illustrative of our subject, but our limits, which have already been far exceeded, necessarily preclude any farther remarks. The leading characteristics of those works we have enumerated will readily be recognized by the professional man, as belonging to the science of civil engineering, and as marking indelibly and indisputably a noble outline in its early history. They may afford some instruction to the general reader, and a more extended knowledge of this science; if the views which have been taken of them and the time bestowed in putting them together, shall tend to render a service to the public or the "*corps*," the object of the writer will be fully attained.

Poughkeepsie, Jan. 27, 1842.

YOUNG MEN'S STATE ASSOCIATION.

At the last Annual Meeting of the State Association, a proposition was submitted by Mr. John B. Miller, of Utica, to organize a Debating Society to be connected with the State Association. This proposition was referred to a committee to examine and report thereon, at the next annual meeting. The committee, consisting of Messrs. Miller and Tracy of Utica, and Mr. Van Voorst of Schenectady, have suggested the following for the consideration of the different Associations, to be acted on at the next annual meeting.

"The main defect in the present arrangement of the Associations seems to be in the debating department, and this perhaps is owing in a great measure, to the present circumscribed limits of the societies. This difficulty it is proposed to obviate by forming a connected set of debating societies, to extend first from the individual associations to a certain circuit of societies, and by different gradations finally centre in a state dispute, to be held at the general convention, before the delegates from the whole state. It is hoped that by this combination more spirit may be infused into all the associations, their individual usefulness increased, and an agreeable acquisition made to the exercises of our state conventions.

In the following outline the *apportionment* has been chosen, not with any view to the practicability of such a division, but merely for the present elucidation of the project.

First. That the associations throughout the state be divided into two equal districts. That the general convention offer six questions for discussion to these districts, annually, to be disputed before debating societies formed in each district. The same six questions to be offered to each district.

Second. That *blank* number of disputants be appointed by the different individual associations, to form a district society, to discuss the questions proposed as above by the general convention.

Third. As it is fairly to be supposed that contrary decisions will be made, on some of the questions thus discussed in the different districts, let such questions be carried up to the state convention, and let the disputants who have gained upon opposing grounds in the district societies again debate the same before the assembled delegates at their annual meeting.

Thus the victorious in the district societies will be antagonists, and recontest a field on which they have all once appeared as conquerors, and spirited, and interesting arguments be drawn forth by the strife between the chosen disputants of all the associations. Thus the bounds of the different societies would be indirectly extended over the whole state, and their members have the opportunity of coming in contact and measuring their strength with the elite of all the associates in the state. Should it be objected that the expense would prevent some from attending the district and general disputes; the difficulty could easily be removed by the associations paying the mileage of their respective delegations. If the plan should, in the good judgment of the young men of this state to whom it is submitted, appear impracticable or visionary on the above scale it may at least be productive of much good, if it should tend merely to induce contests between the separate associations. On the other hand it is known that inquiries have been received from Georgia, in relation to the success of our state conventions, the young men of other states are watching with interest their proceedings.

Should the experiment succeed, we may look forward to the day when the disputants of our state shall challenge those of another. When the young men of America shall join in a contest most truly honorable to themselves, and one to which no country other than America ere gave birth; and in which none but the young men of America are, as a body, capable of engaging.

[For the Northern Light.]

THE CRUSADES.

BY P. H. AGAN.

Probably there is no event since the Christian era, which is calculated to produce that degree of astonishment, wonder, and even admiration upon the mind, as is produced in the contemplation of the history of those gigantic enterprises, which characterize the latter period or close of the dark ages, denominated the crusades or holy wars.

The cause which operated upon the minds of the people of Europe, and which produced those mighty enterprises that were continued for a period of two hundred years, was founded in a rumor which became prevalent throughout Europe about the end of the eleventh century, that the Messiah was soon to appear in person upon the earth, for the purpose of establishing an universal empire with the capital at the ancient and renowned city of Jerusalem; and it was therefore considered by the people as an act of duty which they owed to God, to make an effort to drive the infidels from that city, and to prepare it suitably for his reception.

Heralds were sent forth from nearly all of the states of Europe, to proclaim to the people the glad tidings, and to enlist them under the banners of the cross. Their success was almost incalculable; all ages and conditions of men enlisted, from the proudest and haughtiest monarch upon the throne, down to the most abject slave; all governed by the same impulse, the same desire: all grasping at the same object; and believing that if they succeeded in their object, eternal happiness would be their portion; and on the other hand, being threatened with the endless wrath of the Almighty, were they to remain inactive spectators of the good cause.

These hopes and fears operating at the same moment upon the minds of an ignorant and deluded people, would naturally incite them to action; and therefore it is not surprising to witness the people, governed by these causes, flocking en masse to the standard of the cross, and ranging themselves under the imposing title of the soldiers of Christ.

These enterprises of the people of those days, have been characterized by historians as wild, vain, extravagant and foolish; but is it strange, when we look at the state of society at that time, to behold ignorant, debased and superstitious men, governed solely by religious frenzy sacrificing their own lives, and the lives of their fellow beings, in a cause which they firmly believed would redound for their temporal, but more particularly for their eternal interests?

Nearly three millions of the human race were sacrificed in these wars, and enormous sums of money expended; but these evils are trifling, when compared with the good results which have flowed from them. The crusades were productive of great and lasting good to mankind. They operated like other wars, to draw out and in a manner to extinguish those warlike and ungovernable spirits, which can never remain at rest in any community; the general and long continued union of the different nations of Europe, though produced by religious frenzy, in some measure prevented those wars which had before continually existed among the different nations, and which had destroyed such incredible numbers of mankind. In the far distant countries of Asia, the crusaders recognized one another as mutual friends engaged in one common and glorious cause, and it was here that they learned this truth, that a community, or a state, when divided into small bodies or neighborhoods, each governed by conflicting interests is weak and powerless; bnt when these communities are joined together in a common cause, that wealth, power, influence, and independence are sure to follow. They had a powerful tendency to loosen the iron fetters produced by the operation of the feudal system; and commerce, which had before been crippled and confined, at once extended itself throughout Europe and the east.

These results operated most powerfully to hasten the arrival of that great era in the history of the world, and which in its effects, has been of such vast importance to mankind—the revival of letters; and it is a fact well known by all, that immediately subsequent to the close of the crusades, the European nations began to emerge from the almost impenetrable darkness in which they had been involved for a period of eight hundred years, and to exhibit to the world a spirit of independence, which always follows in the wake of knowledge and education.

If, as has been stated, these results so beneficial to mankind, have had their origin in the events that have been related; the people of the United States, who are enjoying the highest blessing of civil and religious liberty, and with the means of education within the grasp of all, should be forever thankful to those brave, though misguided spirits, who carried on those mighty enterprises, which in their consequences, have proved a source of lasting benefit to the human race.

Liverpool, February, 1842.

[For the Northern Light]

THE VOTARY OF PLEASURE.

BY CHARLES H. LYON.

I saw a gallant youth depart
From his early home,
O'er the world to roam
With joyous eye, and bounding heart,
Did he speed along
Through the mingled throng;

And he recked not of aught that lay in his course
As he onward moved, with the impetuous force
Of a spirit free, and unrestrained,
That ne'er would rest till its goal was gained.

"Whither, O Youth," a voice inquired,
With an earnest tone,
And a stifled groan,
"Art bound so swift, as thou wert fired
In thy inmost mind
With an impulse blind?"

"I am bound for the realm, be it far or near,"
The rover replied, as he checked his career,
"Where pleasure is found, and mirth, and glee,
And a ceaseless flow of gaiety."

I saw that youthful form once more,
When its goal was gained,
And its end attained:
I knew its brief pursuit was o'er
From its altered mien,
And its faded sheen.

Ah, the bounding heart, and the joy-beaming eye,
Were succeeded by tears, and the deep-drawn sigh.
Of beauty, and manly pride and grace,
There scarcely lingered a single trace.

"O what," the voice inquired again,
"Hath wrought this change
So sad and strange?
Didst thou at length, O youth, obtain
In its full measure,
Thy heart's fond treasure?

"Didst thou gain the realm where the pleasures of sense
In profusion flow, unrestrained, and intense?
Didst thou reach the sphere where mirth and glee
Are blended with ceaseless gaiety?"

"Too soon," exclaimed the stricken form
With a down cast eye
And a bitter sigh,
"While hope was young, and passion warm,
Did my ardent soul
Reach the fatal goal.

"Ah, my spirit hath been with the giddy throng,
And shared in the revel, the cup, and the song.
But its tone is gone; 'tis stricken now;
The curse of pleasure is on my brow."

Irving Institute, Feb. 1842.

FINAL REPORT ON THE GEOLOGY OF MASSACHUSETTS, 2 vols., quarto.

Vol. I. Containing Economical and Scenographical Geology. Vol. II. Scientific and Elementary Geology. By Edward Hitchcock, L. L. D., *Prof. of Chemistry and Natural History, in Amherst College: Geologist to the State of Massachusetts, &c.—Northampton*, 1841. *J. H. Butler, publisher.*

The present work appears in a style worthy of the importance of the subject of which it treats; and the subject matter is in the usual clear and lucid manner of the author. Professor Hitchcock has previously appeared before the public in his Report on the Geology of Massachusetts, published after a brief survey in 1833; and those who have had the pleasure of perusing that volume, may form some idea of what has been accomplished during the past eight years, the greater part of which time the author has devoted himself to this object.

The history of the Geological Survey in Massachusetts, shows in what light the results are viewed by her intelligent citizens. The first resolution of the legislature, authorizing a geological survey, was passed on the 5th of June, 1830; in the following year a resolution was passed, requiring a catalogue of the minerals, plants and animals, to be annexed to the Geological Report. A Report on the Economical Geology was presented to the legislature in 1832, and ordered printed. In 1833, a full Report was presented to the legislature which was ordered printed with the accompanying drawings. In 1834,

a new edition was ordered printed, together with the atlas accompanying it, and with such alterations and additions as might be proposed by the Professor.

In April, 1837, the Governor and Council were authorized to appoint suitable persons to make a complete Geological, Mineralogical, Botanical and Zoological survey of that Commonwealth. In 1838 a Report on the Economical part of the survey was presented to the legislature and printed. Near the close of 1839 the Final Report was presented and ordered to be printed.

We have given this sketch of the history of this survey, as tending to illustrate the manner in which this great work of utility has progressed from time to time. It is quite impossible to undertake an analysis of the subject in the short space of this article; it is worthy of a far more extended notice. The work is illustrated by fifty-five plates of scenery, fossils, sections, etc., placed respectively at the end of each volume, besides which there are incorporated with the text 282 wood cuts, illustrating the whole in the most satisfactory manner.

Of the first volume, 126 pages are devoted to the subject of soils, including their geology and chemistry, analysis, sources of calcareous matter, Geine, the amendment of soils, etc. This part of the subject is treated in a masterly manner, showing that much time and labor have been devoted to the subject. The experiments on the moisture absorbing and retaining powers of soil, are interesting to the practical farmer. The succeeding 100 pages are devoted to the consideration of fossil fuel, rocks for architectural purposes, metals, ores, etc. etc., and about 70 pages, to Scenographical geology.

The greater part of the second volume is devoted to Scientific Geology, in which the rocks of Massachusetts are considered in their relation to the science, their extent and succeession. This in all cases must be regarded as the foundation of Economical geology; for until the nature and extent of formations be known, the geologist has no guide in his search for useful or valuable matters.

The whole work has been accomplished in a most able and satisfactory manner. The results of investigations in the New Red Sandstone of the Connecticut valley, and the discovery of fossil foot-prints, promise a rich reward of fame to the untiring zea of Prof. Hitchcock—who, though bounded within the narrow limits of a state containing few fossiliferous strata, has nevertheless exhibited to us wonders in this department of the science, scarcely equalled in any part of the world.

The Botanical and a part of the Zoological Reports have been noticed in a previous number of this paper:—We shall hereafter give a short notice of the Report on the Invertebrata of the state. J. H.

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New-York City—Israel Post, 88 Bowery.
Utica—Isaiah Tiffany, Genesee-street.
Buffalo—W. B. & C. E. Peck.
Oswego—E. W. Clarke.
Geneva—Samuel F. Stow.
Boston—W. H. S. Jordan, 121 Washington-street.
Bangor—J. C. Plummer.

TRAVELLING AGENTS.

Misael Ballard, of Sardinia, N. Y.
Thos. M. Easterly, of Brattleboro', Vt.
John H. Allen, of Auburn, N. Y.
William Stoughton, of Brockport, N. Y.
D. Judson, of Clinton, N. Y.

FROM THE STEAM-PRESS OF C. VAN BENTHUYSEN.

Statistics of the State of New-York---1839.

The following table of statistics for the state of New-York, has been compiled for the Albany Argus, with care, from the returns of the last census, as made by the marshalls, to the Department of State of the United States.—*Albany Argus.*

	Total production.		Av'rage price.	Aggregate value.	No. persons employed.	Capital invested.
AGRICULTURE.						
Wheat	12,286,418	Bushels	$1 30	$15,972,343		
Barley	2,520,069	"	74	1,864,850		
Oats	20,675,847	"	46	9,510,880		
Rye	2,979,323	"	70	2,085,526		
Buckwheat	2,287,885	"	50	1,143,942		
Corn	10,972,286	"	80	8,777,829		
Wool	9,845,295	Pounds.	35	3,938,118		
Hops	447,250	"	12	53,679		
Wax	52,795	"	25	13,199		
Potatoes	30,123,614	Bushels	32	9,639,556		
Hay	3,127,049	Tons.	15 00	46,905,705		
Hemp and Flax	1,130	"	188 00	212,440		
Tobacco	741	Pounds.	06	44		
Silk Cocoons	1,735	"	30	520		
Sugar	10,048,109	"	06	602,886		
Wood	3,058,923	Cords.	5 00	15,294,615		
Products of the dairy				10,496,021		
" orchard				1,701,935		
Family-made goods				4,636,547		
Wine	6,799	Gallons	1 00	6,799		
Total value				$132,857,433	456,475	
HORTICULTURE.						
Produce of market gardens				499,126		
" nurseries and florists				75,980		
Total value				$575,106	925	258,556
PRODUCTS OF THE FOREST.						
Lumber produced				3,891,302		
Tar, pitch, turpentine, &c.	402	Barrels	2 00	804		
Pot and Pearl Ashes	7,613	Tons.	110 00	837,430		
Skins and furs				15,556		
All other productions				143,332		
Total value				$4,888,424	4,664	
FISHERIES.						
Smoked and dried fish	5	Qnt'ls.	2 00	10		
Pickled fish	22,224	Bbls.	2 50	55,560		
Sperm oil	400,251	Gallons	95	380,238		
Whale and fish oil	1,269,541	"	37	469,730		
Whalebone &c.				344,655		
Total value				$1,250,193	1,228	949,250
MINES.						
Cast Iron	29,088	Tons.	60 00	1,745,280	3,456	2,103,419
Bar Iron	53,693	"	85 00	4,563,905		
Lead,	70,000	Pounds.	03	2,100	333	221,000
Other metals				84,564		
Salt	2,867,884	Bushels	25	716,971	332	5,601,000
Granite and other stone				1,541,480	3,649	1,002,555
Total value				$8,654,300		
MANUFACTURES.						
Woollen				3,537,337	4,636	3,469,349
Cotton				3,640,237	7,407	4,900,772
Silk				2,415	101	8,034
Flax				46,429	90	15,000
Mixed				1,497,067	2,005	675,953
Tobacco				831,570	669	396,530
Machinery				2,895,517	3,631	
Hardware, cutlery, &c.				1,566,974	962	
Cannon	112		50 00	5,600	203	
Small arms	8,308		30 00	249,240		4,563,189
Precious metals				1,106,203	708	
Various do				2,456,792	1,713	
Granite, marble, &c				966,220	1,447	
Bricks and lime				1,198,527	3,160	
Hats and caps				2,914,117	3,880	1,676,530
Straw bonnets				160,248		
Sole leather	1,250,890	Sides.	4 50	5,629,005	5,579	3,907,348
Upper "	827,993	"	2 50	2,069,982		
Other "				6,232,924		2,743,765
Soap	11,939,834	Pounds.	05	596,991	677	618,575
Tallow candles	4,019,783	"	11	442,176		
Sperm and wax candles	353,000	"	35	123,550		
Distilled liquors	11,973,815	Gallons	25	2,993,453	1,486	3,107,066
Fermented do	6,059,122	"	20	1,211,824		
Gunpowder	1,185,000	Pounds	12	142,200	41	81,500
Drugs, paints, &c.				877,816	677	1,267,835
Turpentine and varnish				431,467		
Glass				411,371	498	204,700
Earthen ware, &c.				159,000	197	88,450
Sugar				385,000	416	474,656
Chocolate				5,000		
Confectionary				386,142		
Paper, playing cards, &c				762,768	749	703,550
Cordage				792,910	597	241,180
Musical instruments				472,910	438	408,775
Carriages and wagons				2,364,461	4,710	1,486,023
Flour	1,861,385	Barrels	6 00	11,168,310	10,807	14,648,814
Produce of flour and other mills				16,963,280		
Ships built				797,317		
Furniture				1,971,776	3,600	1,610,080
All other manufactures				9,615,206		6,078,507
				$90,081,322		$53,274,504

RECAPITULATION.

Agriculture	$132,857,433
Horticulture	575,106
Products of the Forest	4,888,424
Fisheries	1,250,193
Mines	8,654,300
Manufactures	90,081,322
Estimated value of *annual* productions	$238,306,778

LIVE STOCK.		
Horses and mules	474,543	
Neat cattle	1,911,244	
Sheep	5,114,777	
Swine	1,900,065	
Poultry of all kinds, value		$1,153,413

COMMERCE.	Men empl'd.	Capital invested.
Com'l houses in foreign trade	469	
Commercial houses	1,044	$49,583,001
Retail dry goods & other stores	12,207	42,135,795
Lumber yards and trade	414	9,592 2,694,170
Internal transportation	7,592	
Butchers, packers, &c.	901	2,833,916

PRINTING & BINDING.		Men employ'd.	Capital invested.
Printing offices	321		
Binderies	107		
Daily newspapers	24	3,231	$1,876,840
Weekly "	198		
Semi & tri-weekly "	18		
Periodicals	67		

HOUSES BUILT.			
Brick and stone	1,233	16,768	7,265,844
Wooden	5,198		

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